

**State of Alaska
ALASKA RETIREMENT MANAGEMENT BOARD
MEETING**

Location of Meeting
Egan Room - Centennial Hall
101 Egan Drive
Juneau, Alaska

**MINUTES OF
February 16-17, 2012**

Thursday, February 16, 2012

CALL TO ORDER

VICE CHAIR SAM TRIVETTE called the meeting of the Alaska Retirement Management Board (ARMB) to order at 9:00 a.m.

ROLL CALL

Six ARMB trustees were present at roll call to form a quorum. Chair Gail Schubert and Kris Erchinger arrived shortly before 10:00 a.m.

Board Members Present

Gail Schubert, *Chair*
Sam Trivette, *Vice Chair*
Gayle Harbo, *Secretary*
Kristin Erchinger
Commissioner Becky Hultberg
Commissioner Bryan Butcher
Martin Pihl
Tom Richards

Board Members Absent

Mike Williams

Investment Advisory Council Members Present

Dr. Jerrold Mitchell
Dr. William Jennings

Department of Revenue Staff Present

Angela Rodell, Deputy Commissioner
Gary M. Bader, Chief Investment Officer
Pamela Leary, State Comptroller
Bob Mitchell, State Investment Officer
Zach Hanna, State Investment Officer
Steve Sikes, State Investment Officer
Judy Hall, Board Liaison
Scott Jones, Assistant State Comptroller
Casey Colton, State Investment Officer
Joy Wilkinson, State Investment Officer
Sean Howard, State Investment Officer
Shane Carson, State Investment Officer
Paul Hackenmueller, Assistant Investment Officer
Allison Campbell, Assistant Investment Officer

Department of Administration Staff Present

Mike Barnhill, Deputy Commissioner
Jim Puckett, Director, Division of Retirement & Benefits
Teresa Kesey, Chief Financial Officer, Division of Retirement & Benefits
Bernadet Blankenship, Retirement & Benefits Manager
Julie Wilson, Retirement & Benefits Specialist

Consultants, Invited Participants, and Others Present

Robert Johnson, ARMB legal counsel
Chris Poag, Department of Law legal counsel
Michael O'Leary, Callan Associates, Inc.
Paul Erlendson, Callan Associates, Inc.
John Boucher, SOA Office of Management & Budget
David Teal, Legislative Finance Division
Ron Parenteau, RCM Capital Management
Rob Gillam, McKinley Capital Management
Alex Slivka, McKinley Capital Management
Deborah Woods, Quantitative Management Associates
Peter Sullivan, RCM Capital Management
Ray Edelman, RCM Capital Management
John Alcantra, NEA Alaska
Pat Forgey, Juneau Empire
Jack Kreinheder
Tom Westcott, AK PFFA
Pete Ecklund, staff of Representative Thomas
Darwin Peterson, staff of Senator Stedman
Joan Brown, staff of Representative Thomas
Jeff Roc—?, staff of Senator E—? (illegible sign-in)

Tim Grussendorf, Senate aide
Don Gotschall, retiree
Robert Storer
Doris Robbins (by telephone)
Ron Johnson (by telephone)
Larry Semmens (by telephone)

PUBLIC MEETING NOTICE

JUDY HALL confirmed that public meeting notice requirements had been met.

APPROVAL OF AMENDED AGENDA

MR. BADER added item 13B, Fixed Income Comment.

MS. HARBO moved to approve the agenda as amended. MR. RICHARDS seconded.
The agenda was approved without objection.

PUBLIC/MEMBER PARTICIPATION, COMMUNICATIONS AND APPEARANCES

DORIS ROBBINS spoke by telephone from Fairbanks on SB 187, the pension reserve fund bill. She said the legislation seemed to be hollow because it would remove funding that the State currently makes on behalf of municipalities. She had read that Alaska, at 61% funded, was one of the eight lowest [state pension funds] in keeping pensions paid up. That was not very good.

RON JOHNSON, a member of RPEA (Retired Public Employees of Alaska) in Fairbanks, spoke by telephone. He said he was concerned that the unfunded liability was being paid down at a low rate now, when more should be paid down now because there won't be money in the budget reserve ten years from now when the current schedule calls for state payments of more than a billion dollars a year. He encouraged the Governor and the Legislature to adopt a level dollar pay-down method because, while it would not solve the problem, it would certainly help. He was also very concerned that the 8% investment return assumption for the retirement funds was overly optimistic, and noted that private industry assumes only a 5% investment return. The unfunded liability would be even higher with an investment return assumption lower than 8%.

Mr. Bader and Mr. Puckett introduced members of their respective staffs who were in the audience.

APPROVAL OF MINUTES

MS. HARBO moved that the Board approve the minutes of the December 1-2, 2011

meeting. MR. RICHARDS seconded. The motion passed without objection.

REPORTS

1. **Chair Report** - deferred pending Chair Schubert's arrival.

2. **Committee Reports**

2(a). Audit Committee

Committee Chair MARTIN PIHL reported on the committee's February 15 meeting. They heard presentations from staff members in Juneau who perform tasks essential to the ARMB's mission, including from the Cash Management Section of the Treasury Division. The Division of Retirement & Benefits (DRB) reported good progress in the employer audit program; however, there are still audit findings that give the Committee reason for concern. The committee received statistics on the termination studies from DRB, and heard from the Treasury Division's Compliance Section, where there have been no significant findings in the monthly compliance reports.

[The minutes of the February 15, 2012 committee meeting are on file at the ARMB office.]

2(b). Defined Contribution Plan Committee

Committee Chair SAM TRIVETTE said the committee held a lengthy meeting on February 15. The trustees who had attended the Callan Conference at the end of January also benefitted from the defined contribution plan presentations they heard there. At yesterday's meeting there were no recommendations from either staff or Callan Associates to add new fund options for defined contribution plan (DCR) participants. The committee was told that the DCR plan in Alaska has the lowest fees in the country, the plan is very transparent, and it offers a larger-than-average number of investment options. What is lacking is data on what the participants are doing, and the recordkeeper could likely help with a lot of that. The committee discussed working with the DRB director and staff in the next few months on what data to collect and then meeting again later in the year to see how to use the information gathered.

[The minutes of the February 15, 2012 committee meeting are on file at the ARMB office.]

3. **Retirement & Benefits Division Report**

3(a). Membership Statistics

DRB Director JIM PUCKETT indicated that the membership statistics for all the retirement systems were included in the meeting packet. He said over 2,000 retirements were processed in 2011, the highest number in a decade; with the demographics, the division expected that number to increase for the next 12 or 13 years before tapering off.

MR. PUCKETT and MS. KESEY answered several questions from trustees on the membership statistics.

3(b). Buck Consulting Invoices

The division provided the monthly invoices from the actuary so trustees could review the billings and services provided. MR. PUCKETT reported that the part of Buck's SB 121 analysis related to the active health plan would not be charged against the retirement funds because the ARMB does not have any oversight of the active health plan.

3(c). Follow-Up on Audit Finding For National Guard System

MR. PUCKETT stated that DRB followed up on the independent auditor's report of a significant deficiency finding on the National Guard and Naval Militia Retirement System (NGNMRS), as discussed at the December Audit Committee meeting. The Division contacted the staff of NGNMRS, and they recognize they have an issue with supplying DRB with the backup documentation that is necessary to verify that the participant information is correct. DRB staff will be meeting in person with NGNMRS, as the schedule allows during the legislative session, to begin working on the processes to ensure that the data supplied to DRB is timely and correct. He expected to report in more detail at the next Board meeting.

3(d). Legislative Update

This report was given later when Mr. Barnhill arrived.

4. Treasury Division Report

Department of Revenue Commissioner BRYAN BUTCHER indicated that the Deputy Commissioner was testifying at the Capitol, but there was nothing new to report from the Treasury Division.

5. Chief Investment Officer Report

Chief Investment Officer GARY BADER reviewed a list in the packet of investment staff actions and other items he was reporting to the Board.

6. Fund Financial Report

State Comptroller PAMELA LEARY presented the financial report for the retirement systems. The total invested assets for all the retirement systems for the six months ending December 31, 2011 were \$19.0 billion, which represented a decrease of 3.67% from the beginning of the fiscal year. That decrease was due primarily to investment losses during the six-month period. MS. LEARY also reviewed the balances of each retirement system at December 31.

She said that as of January 31 unaudited net assets of the retirement systems were close to \$19.7 billion. The meeting packet contained a one-page summary for each retirement system with graphs showing the invested assets, investment income, and asset allocations as of December 31. The packet also included reporting of funds by manager for the non-participant directed plans, and the December 31 status of the invested assets

in the participant-directed plans.

Chief Financial Officer of the Division of Retirement and Benefits, TERESA KESEY, presented the supplemental financial report for the six months ended December 31, 2011. The first page contained the details of the net contributions and withdrawals from the various retirement systems. She pointed out that the Alaska Retiree Health Care Trusts for the Public Employees' Retirement System (PERS) and the Teachers' Retirement System (TRS) saw additions of \$32 million and \$12.6 million, respectively, from a Retiree Drug Subsidy (Medicare Part D) payment and an Early Retiree Reinsurance Program payment in October.

The second page showed non-investment changes in the various funds for the month of December alone.

MS. HARBO drew attention to the \$6.43 million that was refunded from PERS for the six months ending December 31, 2011, and the \$2.76 million that was refunded from TRS — for a total of about \$9.0 million.

MR. PIHL mentioned that over 5-1/2 years the cash flow of the retirement systems, without State assistance, has been negative. He said he had been tracking it as part of studying the unfunded liability issue, and he thought it was an important observation that the Board and others needed to understand.

7. Investment Actions

7(a). Manager Review Action

MR. BADER reviewed the staff memorandum in the packet that documented a manager review meeting in Boston attended by the three Investment Advisory Council members, Michael O'Leary and Paul Erlendson of Callan Associates, and staff members Gary Bader and Judy Hall. The group reviewed the manager questionnaires and discussed the various investment managers. One manager drew particular concern: Mariner Investment Group. The review team's view was that the ARMB's investment relationship with Mariner be terminated.

DR. JENNINGS and DR. MITCHELL both indicated they had nothing to add to the material included in the meeting packet, and MR. O'LEARY agreed.

VICE CHAIR TRIVETTE said he had reviewed the written material carefully, and he agreed with staff's recommendation.

MS. HARBO moved that the Alaska Retirement Management Board direct staff to liquidate the Mariner portfolio and to terminate the contractual relationship with Mariner when the liquidation was complete. MR. RICHARDS seconded.

The motion passed unanimously, 6-0, with trustees Richards, Pihl, Hultberg, Harbo, Butcher and Trivette voting. *[Chair Schubert and Ms. Erchinger were absent for this agenda item.]*

VICE CHAIR TRIVETTE said the due diligence done for the manager review meeting made him feel very comfortable that careful attention was being paid to each one of the investment managers.

The meeting was ahead of schedule, and the Board took up a couple of agenda items out of order.

13A. IFS Report Actions

MR. BADER reviewed the written staff report that addressed a recommendation in the Independent Fiduciary Services (IFS) audit report regarding a benchmark for the RCM Socially Responsible Investment Fund, which is currently benchmarked against the S&P 500 Index.

IFS Task Area A.2 - Investment Performance Benchmarks

IFS report recommendation #4, page 35, states:

ARMB should consider adding the KLD index on which the RCM Socially Responsible Investment Fund is based as a strategic benchmark.

MR. BADER said the Defined Contribution Committee discussed this at its meeting yesterday and concurred with staff's recommendation to amend the contract to add a style index benchmark, commonly known as KLD, to the S&P 500 Index goal.

MS. HARBO moved that the ARMB approve IFS recommendation #4 in Task Area A.2, adding the MSCI USA ESG Index as a benchmark for the RCM Socially Responsible Investment Fund. MR. RICHARDS seconded. The motion passed without objection.

13B. Fixed Income Update

MR. BADER stated that the retirement fund fixed income portfolio is primarily intermediate-term Treasuries. The yield on those Treasuries is next to nothing now, and the inflation rate exceeds the yield. Staff believes that the investment approach needs to be analyzed and that they should explore alternatives to having a sizeable portion of that portfolio invested in intermediate Treasuries. He said he had discussed this briefly with the Investment Advisory Council and the Callan people earlier in the morning. Staff expected to provide a report to the Board at the April meeting.

DEPUTY COMMISSIONER MIKE BARNHILL joined the meeting at this point and was invited to give his report.

3. Retirement & Benefits Division Report (continued)

3(d). Legislative Update

MR. BARNHILL explained the status of SB 121, a bill that would create a choice for new employees, and the existing employees in the defined contribution system, between a defined benefit plan and a defined contribution plan. He said the Administration opposed SB 121.

The other bill of interest was SB 187 related to the retirement system unfunded liability, and David Teal was scheduled to make a presentation on that legislation at this meeting.

MR. BARNHILL said there were other bills pending relating to enhancing the benefits available in retiree health plans. He said the Department of Administration (DOA) had done a lot of work over the past year on issues related to wellness and preventive care. The department's position was neutral on the bills; however, it preferred to accomplish the ultimate objectives of the bills for all the health care populations without having legislation passed.

MR. PIHL complimented the DOA for what it was already doing to control health care costs. He added that an exhibit that was presented to the Senate leadership showed that over half of the ultimate \$43.0 billion pay-down of the benefits of the defined benefit plans was health care costs. Half of \$43.0 billion was a big field on which to continue working to reduce health care costs.

MR. BARNHILL remarked that the overall health care cost growth in FY2011 was down from FY2010, which was a very good sign. The question was whether that was sustainable, and the department intended to be vigilant and look at all opportunities to address that.

COMMISSIONER HULTBERG stated that the ARMB had a Health Care Cost Containment Committee that had not been active. She said pension obligations were fairly well defined, while health care obligations were more flexible. Health care costs have been growing about 9.4% a year. DOA was taking a comprehensive look at the health care plans and how to get better outcomes and lower costs. Health care costs was probably a subject worthy of further consideration by the Board, and the department invited any feedback by board members.

14. Investment Advisory Council Appointment

TOM RICHARDS, chair of the IAC Selection Committee, reported that the committee met by teleconference on December 22, 2011. They reviewed excellent candidates and, using a rubric, it was clear to committee members that Dr. Mitchell exceeded the other candidates by far and that the ARMB was very lucky to have him as a candidate.

MR. RICHARDS moved that the Board appoint Dr. Jerrold Mitchell to a term on the Investment Advisory Council commencing March 1, 2012 and ending June 30, 2015, on the terms and conditions set forth in RFS 12-009. MR. PIHL seconded. The motion carried unanimously, on a roll call vote.

13. Executive Session

MS. HARBO moved that the Board go into executive session to consider a report on litigation and matters of attorney-client privilege that would affect the ARMB. MR. RICHARDS seconded.

The motion passed without objection, and the Board began meeting in executive session at 9:53 a.m. The executive session ended at 10:15 a.m., and the Board returned to regular session. [Ms. Schubert and Ms. Erchinger joined the meeting at the beginning of the executive session.]

MS. HARBO moved that the Board give the assistant attorney general the authority to proceed with matters as discussed in executive session. MR. TRIVETTE seconded. The motion carried unanimously, with eight trustees present.

MR. TRIVETTE announced that Dr. Mitchell had been reappointed to the Investment Advisory Council for a three-year term, and he appreciated Dr. Mitchell's willingness to continue to serve the Board.

8A. Presentation on SB 187

DAVID TEAL, Director of the Legislative Finance Division, appeared before the Board to present information about Senate Bill 187. Responding to Mr. Trivette, he stated that he represented Legislative Finance and could not speak for the Legislature. He said the Finance Committee Co-Chairs Senator Hoffman and Senator Stedman had both worked on what he referred to as a "discussion bill."

MR. TRIVETTE mentioned Resolution 2011-23 that was passed at the December meeting that listed the funding options the Board supported and that specifically identified a number of options it did not support.

MR. TEAL said he had seen the resolution and he understood that the Board did not support the concept of SB 187 on the grounds that it never resulted in a fully funded retirement system.

MR. TEAL mentioned an 18-page handout of the actuarial assumptions and concepts that prompted SB 187 *[on file at ARMB office]*. He first explained a handout entitled "PERS under SB187—A Bill that Caps Contribution Rates at 22% and Eliminates State Assistance" *[on file at the ARMB office]*, which he said was a graphical depiction of the output from Buck Consultants' model. He said a question may be, why not simply deposit

\$7.0 billion into the retirement system, close the funding gap, and get it over with? The answer is that nobody ever expects to pay the unfunded liability in a normal system; it is the whole soft liability argument. In theory, by spreading the unfunded liability over an amortization period, it gives the market a chance to get higher returns and fill the unfunded liability gap without ever making any real contributions. That works fine if a system is at 100% or 98% funding ratio because there is some hope that market recoveries will fill the unfunded liabilities. But PERS currently has a 62% funding ratio, and nobody really believes that the market is going to fill the unfunded liability gap. In other words, the soft liability has become a debt.

MR. TEAL said the reason not to deposit the whole \$7.0 billion into the retirement system at once is the mortgage concept; it does not make a person a financial fool to make payments on a house and not pay what they owe right away. The State cannot afford to make the full deposit in the case of the unfunded liability and, more importantly, it does not need to because the retirement system has money. The system is closed, and the liabilities will not continue to go up. The current methodology collects too much money, and at some point there will be a negative past service cost, when the assets exceed the liabilities.

MR. TEAL said this is not a 50-years-from-now problem. The normal rate goes to zero in 15 or 20 years, when the last defined benefit person retires. The current methodology uses a 25-year amortization, meaning there is already a point where the contribution curve turns downward. The contribution rate is simply too high, and there is no need to chase that curve upward as far as the curve goes.

MR. TEAL asked rhetorically, if the current methodology is paying too much, then how much is enough? The ARMB is charged with the fiduciary obligation to manage the system in a manner that is sufficient to meet pension obligations, but the statute does not say when. If the Board thinks of its obligation as having a 100% fully funded system, then it has to follow the liability curve upward all the way to its peak. When the peak is reached, there is no way to bleed off the assets fast enough to not have the assets exceed the liabilities. One way would be to go straight across (the graph) from the starting point in 2011 to some point in 2050, or even slant downward and aim at the year 2070 when the liabilities are much less than they are now. That is the liability to be at, but actuaries would not use an amortization period that long.

MR. TEAL said Buck modeled a scenario with a 22% employer contribution rate and no State assistance, and by 2040 the trust fund was empty and could not pay benefits. Buck also ran a model to see where assets would meet liabilities and the system would be fully funded. The answer was a one-time contribution of \$2.0 billion to the trust fund. That would meet the Board's charge of ensuring there were sufficient assets to pay the liabilities until the last defined benefit plan pensioner died, as long as employers continued to make a 22% contribution. In the model scenario, the contribution rate

eventually falls below 22%, and by statute that cannot happen. The employer contribution rate is set now and forever at 22%, so SB 187 allows the rate to fall below 22% at some point in the future.

MR. O'LEARY commented that Mr. Teal's scenarios presume that all the actuarial assumptions with respect to the retirement systems (investment return, mortality, etc.) are accurate. MR. TEAL agreed. He added that the Board had done an outstanding job of adjusting some actuarial assumptions to better reflect reality, even though it added to the unfunded liability.

MR. TEAL stated that if it would take \$2.0 billion to ensure there were sufficient assets to pay the liabilities, the \$2.0 billion should be split — \$1.2 billion from the State and \$800 million from the municipalities and other employers (because the State has 60% of the employees and the other employers have 40% of the employees). However, the other employers do not have \$800 million to contribute, so the State would have to pay it all.

MR. TEAL said that leads to another question of whether the State would be able to recover this \$2.0 billion "loan" through the system. SB 187 creates a reserve account into which the State would put the money, instead of putting the money into a trust fund, where the assets can only be used for paying benefits. There would be a trigger to transfer money from the reserve account into the trust fund: the trust fund assets would be supported by transfers from the reserve fund so that the funding ratio of the system never falls below 50%. There is another trigger to keep the contribution rate below 22%, as long as the total funding ratio is greater than 60%. The third trigger in the bill allows the State to get money back when the system is healthy.

MR. TEAL spent time explaining the reserve account and transfers to the trust fund in more detail. He said the \$2.0 billion in the reserve account would be invested just like the trust fund assets, but the reserve account assets could not be used to compute the contribution rates, nor, according to GASB rules, could the assets be used to compute the funding ratio of the retirement system. However, the money in the reserve account would ensure the health of the system. If the entire \$2.0 billion was put into the trust fund, the State would not have a method to recover its money. The concept of putting \$1.0 billion in a reserve account and \$1.0 billion in the retirement trust fund works just as well as a \$2.0 billion reserve fund [for ensuring the health of the system].

MR. TEAL next explained the safety trigger to hold the funding ratio of the system at 50%. He said 50% was an arbitrary number; a trigger to make sure the funding ratio does not fall below 60% would work as well but with less head room.

The third trigger in SB 187 is the "poison pill," where the contribution rate goes to the full actuarial rate if the total assets, including the trust fund and the reserve account, are less than 60% of the liabilities. The trigger is to prevent some future legislature from raiding

the reserve account. Some may say that the reserve account is not real money in that it is not under the ARMB's full control, and the legislature can pull back that reserve account any time it wants to. The Constitution prohibits dedicated funds, and it is a dangerous situation to have a reserve account and rely on it and set the contribution rates according to what is in the reserve account. The funding ratio of the system could fall below 60% for a couple of reasons: if the legislature took money out of that reserve account, or if the model did not work (if the actuarial assumptions did not come true). SB 187 is written so that if the funding ratio fell below a certain percentage, the State and the municipalities would pay whatever contribution rate the actuary calculated. Right now, if the calculated rate is above 22%, the State pays the full share. The "poison pill" could easily be changed to revert it to the current policy — if the system is underfunded, then the State pays the difference.

MR. TEAL said none of the bill's options and alternatives affects the real focus, which is to put \$2.0 billion toward the unfunded liability problem now. Then, a 22% contribution rate is sufficient to pay benefits until the system is gone, and the State does not need to contribute the extra assistance. SB 187 is written from the treasury perspective and favors the State interests, and the municipalities would probably find it a harsh bill. The hearings are an opportunity to discuss the bill's options and details, because there are many perspectives besides the State's treasury's perspective. All those perspectives are important and need to be heard and incorporated into the bill.

MR. TEAL commented that some would say SB 187 was paying \$2.0 billion of a \$7.0 billion liability and calling it good, and it must mean \$5.0 billion was being shifted from the State to the municipalities. But that was not true. Most of the savings from State assistance being eliminated in the bill is money that simply would not be collected. The system does not need the money, because over collecting will eventually wind up at some point where assets exceed liabilities. So not collecting the money is not a cost-shifting issue. That is not to say that the 22% rate would not be in effect for slightly longer than it would be under the base case. Buck Consultants was still modeling how long that would be.

MR. PIHL noted that the effective date of SB 187, if passed, was June 30, 2012. He asked if that meant the projected \$610 million of combined State assistance contribution to PERS/TRS would not be made because it would occur in fiscal year 2013. MR. TEAL replied that the intent of the bill was a \$2.0 billion deposit in FY2013 that would include the projected State assistance contribution already in the budget.

MR. PIHL asked if the intention was for the \$2.0 billion to be returned to the State General Fund. MR. TEAL said that when the funding ratio of the system goes above 95%, money from the reserve account would be considered no longer necessary for the health of the retirement system, and the State could begin transferring anything in excess of 95% back to the Treasury.

MR. TEAL confirmed for MR. PIHL that investment earnings on the reserve account were not dedicated or placed into the defined benefit plan and would only get there by appropriation.

MR. PIHL said it appeared that SB 187 assumed that the ARM Board would somehow be required to count the \$2.0 billion deposit in determining the funding ratio of the retirement system. MR. TEAL responded that two funding ratios would be calculated: one would be the GASB method using the trust fund assets only to determine the contribution rates, and the second funding ratio would combine the trust fund and the reserve account assets. MR. PIHL remarked that it would be the difference between sound actuarial practice and something dictated to the ARMB.

MR. PIHL stated that the cash flow of the defined benefit system since July 1, 2006 has been negative without the State assistance. It is almost a certainty that the funding ratio [for PERS] will go below 60% and that the employer rate will go to 34%-35%. The State itself pays 61% of the employer contribution, and that will be forced into a state budget somewhere. The impact of SB 187 can be readily compared with Scenario #5, which would achieve full funding by 2051, and the Board rejected that option [in Resolution 2011-23].

MR. BARNHILL mentioned that Buck Consultants had been quite busy providing actuarial analysis on several bills, along with the normal work they do for the Division of Retirement & Benefits, and they were trying to finish Mr. Teal's request as time permitted.

MR. PIHL said that under Scenario #5 (\$2.0 billion one-time deposit by the State that would earn interest) the additional cost to employers over time by extending the amortization period out from 2032 to 2051 would be \$15.3 billion. The impact on the State itself, by eliminating the assistance of \$5.2 billion or so, would be \$4.0 billion. Under SB 187, if the \$2.0 billion is not in the trust fund and earning interest, it would be a loss of \$43.0 billion. Therefore, that cost goes from something like \$15.0 billion to \$58.0 billion to be paid by someone over time. And for the State itself, the cost would go from \$4.0 billion to around \$30.0 billion. Extending the amortization period out to something like 2080, as SB 187 seems to allow, would make the costs much, much higher. He said that along with telling the public that SB 187 will save \$5.3 billion by doing away with State assistance, the message has to include the long-term impact of not funding. He looked forward to seeing the results of Buck's analysis under the SB 187 scenario.

MS. ERCHINGER pointed out that the handout graph ("PERS under SB 187") provided by Buck was not representative of SB 187, because SB 187 did not give \$2.0 billion to the retirement trust fund, but Buck's analysis assumed the \$2.0 billion deposit was in the trust fund.

MR. TEAL said that all the triggers in SB 187 were trivial, because the point was that \$2.0 billion solves the [unfunded liability] problem, whether the money was put into the trust fund or the reserve account.

MS. ERCHINGER said that interest earnings [on the pension reserve account] were included on the handout graph as though they were part of the retirement trust fund, but in SB 187 the earnings would not actually be in the trust fund. MR. TEAL responded that the funding ratio was calculated on the sum of the trust fund and the proposed reserve account, so it did not matter which account the interest earnings were in. MS. ERCHINGER said she did not think that Buck Consultants would agree that it would be appropriate to combine the two pots of assets, given that the \$2.0 billion would never be deposited in the trust fund, nor would the interest earnings make it into the trust fund.

MS. ERCHINGER stated that the Board spent a lot of time looking at possible solutions for the unfunded liability issue at its last meeting. Twenty-eight of those scenarios were just PERS related. Of those 28 scenarios that the Board looked at, the scenario in the handout graph ("PERS under SB 187") was the third most expensive scenario for the State of Alaska in the long run and the most expensive scenario for the municipalities in the long run. That was specifically why the Board unanimously opposed Scenario #5. She said she wanted to make it clear that Scenario #5 was not the SB 187 scenario depicted in the handout graph, because the graph did not depict the impact of not having the interest earnings in the trust fund. So in a best-case scenario, SB 187 will cost the State and municipalities combined \$10.0 billion. According to newspaper reports, of that [\$10.0 billion] increase, the State actually will have a cost decrease of \$5.2 billion. But that \$5.2 billion decrease is just a decrease in the assistance payments that the State is making on behalf of the political subdivisions. That does not account for the fact that as an employer under Scenario #5 the cost to the State increased by \$9.4 billion. So the best-case scenario is not the State saving \$5.2 billion but the State's cost increase by \$4.2 billion from the status quo. Further, the big impact is on the municipalities, where their total costs will increase \$6.0 billion, or 152%.

MS. ERCHINGER said she was really surprised that the Board had been given such an expensive scenario to look at in the handout graph. She absolutely disagreed with Mr. Teal's previous statement that the proposed reserve account would not be used for setting contribution rates. Page 7 of SB 187 stated that the Board must include the value of the assets in the pension reserve account when setting rates. The bill says that if the combined assets in the pension trust fund and the pension reserve fund result in a funding ration greater than 60%, then the employer contribution rates are capped at 22%.

MS. ERCHINGER stated that, not only from a generally accepted accounting principle (GAAP) standpoint, but also from a fiduciary responsibility standpoint, she did not know how the Board could in good conscience consider the value of the assets in a pension reserve fund for the purposes of setting rates — and especially for the purposes of

capping rates.

MS. ERCHINGER said per SB 187 the new reserve fund would only transfer money to the pension trust if the funding ratio fell below 50%. And then only the amount necessary to bring the funding ratio to 50%. That would not happen until 2062, or 50 years from now, per Buck Consultant scenarios they ran for the Board's last meeting. So the PERS pension fund would get zero dollars of the reserve account money until its own funding ratio fell below 50%. She had calculated that the PERS trust would get about \$19 million in the year 2062, and it would get around \$19 million a year for approximately ten years. So, based on Buck's model, the maximum amount of the proposed reserve fund that would ever find its way to the pension trust was on the order of \$200 million. The rest of the money would go back to the General Fund. How could the Board use those assets to set contribution rates when it knows those assets are not available to fund the pension plan?

MS. ERCHINGER explained that when the combined assets in the reserve fund and the pension trust fund reached 95% funded, at that point the reserve fund money would get transferred back to the General Fund. She had calculated that that would happen around 2051-2052, depending on cash flows. That is when about \$590 million would be transferred for the first time from the reserve fund back to the General Fund, not to the pension trust. The interest earnings on the reserve account would most likely never end up in the pension trust fund. The interest earnings would have to be appropriated each year by the Legislature; and nothing in SB 187 recommended that the earnings be appropriated into the trust fund, so she assumed the earnings would be appropriated into the reserve fund. The most dangerous component of the bill to her was the section that required the Board to include the value of the assets in the proposed reserve fund, along with the assets in the trust fund, for the purposes of setting rates.

MS. ERCHINGER reminded trustees that the current status quo plan gets the retirement systems to full funding in 19 years, not 50 years from now. She thought the provision in the proposed bill that would cap the contribution rate at 22% for the State and the municipalities was designed to be a selling point for the political subdivisions. But what was not being presented was the additional cost to the State of the employer portion of the rate, which was \$9.4 billion, nor was the Board hearing about the \$6.0 billion added cost to the municipalities. The Board was not hearing that this was the most expensive scenario that it looked at.

MS. ERCHINGER said the ARMB in its resolution supported a \$1.0 billion contribution directly into the pension trust fund. The Board did not have a lot of discussion about the 22% rate cap, but it looked at other scenarios of different caps. The Board fully understands the impacts of SB 187, maybe not the worst-case scenario but they full understand the best-case scenario. The Board could do better than that. She urged fellow trustees to be especially aware of any provisions in SB 187 that would force the Board to

establish contribution rates based on any assets that were not part of the pension trust fund. It sets a dangerous course and puts the Board in a bind.

MR. TRIVETTE remarked that the Board took the [unfunded liability] issue very seriously and had been looking at various options, literally, for years. The Board had requested that its legal counsel, Rob Johnson, explain its fiduciary responsibility and statutory obligations, which he did at the December meeting. The Board spent considerable time looking at Buck Consultants' analysis of various funding options and on carefully developing Resolution 2011-23 to list what options the Board could support. The Board was very concerned about those options it thought were going to hurt the State of Alaska long term. The Board did not even consider a \$2.0 billion option because at a previous meeting attended by Mr. Teal and Mr. Kreinheder (from the Office of Management and Budget at the time), it was stated that it would be a waste of time to talk about putting anything more than \$1.0 billion into the pension trust fund. This did not mean the Board would not consider a deposit bigger than \$1.0 billion if trustees thought it would be a viable option.

MR. PIHL said he hoped the ARMB would get a copy of Buck's analysis of SB 187 as soon as it was available, and that the [cost] impact on everyone (based on their percentage of payroll) be developed and given to the legislators who needed to know the impact on their constituents. Municipalities should be aware that if SB 187 were to become law their contribution rates would probably go from 22% to 34-35%, and soon.

MR. RICHARDS remarked that he was impressed with Mr. Teal's analysis and ability to think through a complicated problem, however, he did not side with things Mr. Teal said in his presentation. First, contrary to Mr. Teal's statement, he personally expected the unfunded liability to be paid off - and the sooner the better. He thought that the people who were involved with SB 141 made that argument, which was why they made changes to the retirement plans. He said it seemed that Mr. Teal picked some of the tough scenarios to describe, with various triggers for a percentage of this or that, so that it seemed like a negotiation process with the Board agreeing as they moved through SB 187.

MR. RICHARDS went on to say that the defined benefit retirement system is a closed system, and there may be one dollar or a \$100 or \$1.0 million left in the system when the last person passes away. There will have to be a solution to that overfunding, and he agreed with Mr. Teal that there could be a methodology applied in the out years that takes some money out of the pension trust but leaves plenty. As a newly retired person, he was uncomfortable that the PERS was 62% funded and that he would have to worry that one of the greatest states in the nation might have to go through some of the things that other states are doing. He asked Mr. Teal to consider a way to get the retirement system funded earlier and make the public employees comfortable in their old age. Alaska is one of the few states that actually calculates the health care part of its retirement plan liability.

He said Commissioner Hultberg had earlier told the Board that the Administration was looking at how to produce some savings in the health care part. He thought the funding ratio of the retirement system would be much higher with the health care portion taken out of the calculation.

MR. TEAL responded that he did expect to pay off the unfunded liability. But in a normal retirement system one does not really expect to pay all of it off. The unfunded liability came from losing money in the market, and there is 25 years to allow the market to recover those losses. Normally the market would recover the losses, and all the money discussed earlier would not have to be paid. But at a 62% funding level, the market is not going to recover, and the unfunded liability is a debt that has to be paid, not a soft liability. The unfunded liability would have to be paid if it was an open system and the liabilities were expected to continue to go upward. But it is a closed system with a closed 25-year amortization period. Many states have a 25-year or longer amortization period, meaning that every year they do the equivalent of refinancing a house, and they repay over 30 years each time. With this open amortization period, these states do not expect to make the payments but are just allowing time for the market to fix the [unfunded liability]. Alaska chose not to do it that way.

MR. TEAL acknowledged that he and the Board had some fundamental disagreements on the model, what it meant, and where it was going. Referring to Ms. Erchinger's statement that there would be no transfers from the proposed pension reserve account until 2060, he said the trust fund would be broke by 2040 without the \$2.0 billion [deposit in a reserve account]. The funding ratio would be zero. It would take 15 years before money would start moving from the reserve account to the trust fund. The need for assets in the year 2062 is projected to be less than \$5.0 billion, and a million dollars in 2062 will not be worth what a million dollars today is worth. That is why he would not simply add up dollars over a 70-year period.

MR. O'LEARY said his interpretation of the Buck "PERS under SB 187" graph was that in making the calculations there was a presumption that the trust fund assets would have grown by the actuarial rate of 8.0%. If there were no earnings, then the fall-off in assets would be steeper; and if the earnings were greater than 8.0%, then the assets would grow more rapidly.

MR. TEAL remarked that obviously there were two different sets of data being used. The Buck model showed that transfers to reserves must occur in about 15 years, not 40 years. Because of legal requirements, he could not assume that interest would remain in a fund and be spendable. The Legislature cannot spend money without appropriating it, so there is the worry about whether the Legislature would appropriate the [reserve account] earnings. If it did not appropriate the earnings, then the [PERS] funding ratio would begin to fall, triggers would be hit, and the contribution rates would go up.

MR. TEAL rhetorically asked, when would the rates go up? When the total funding ratio — pension trust fund plus reserves — falls below 60%. In the future the Legislature could say that it could really use the several hundred million dollars in earnings that were accumulating in a particular year in what would then be a multi-billion dollar reserve account, and not appropriate the earnings to the trust fund or the reserve account because they felt those funds did not need the money. The Legislature would have every right to do that, so there is no guarantee that the trust fund would see the [reserve account] earnings. There is a trigger, however, that if the earnings were not appropriated, or the Legislature otherwise raided the reserve fund, that the contribution rates would go up. There are two theories to this poison pill. One is to make it taste as bad as possible, so make the municipal contribution rates go up as well, and every municipality would come screaming in protest to the Capitol. Rather than have the municipalities pay any of it, it could simply revert to the way it is now (the State pays).

Referring to one of Mr. Richards' comments, MR. TEAL said it was standard legislative practice to write a bill in the worst-case scenario because it was much easier to back off than it was to get harder.

MR. RICHARDS pointed out that the municipalities were rearing their heads right now and saying SB 187 was not a good thing.

MR. TEAL responded that it was expected and part of the legislative process. He added that it is fine for people to draw a different conclusion from the same data, but the problem is when someone uses different data to draw a different conclusion about the impact on the municipalities.

MS. ERCHINGER remarked that the only conclusion she could draw was that she and Mr. Teal were using different data. She said she had great respect for the work Mr. Teal did, so perhaps the data was the problem. The Board looked at Scenario #1, the status quo scenario of continuing with the 22% employer rate cap, level percentage of pay amortization, and 25-year amortization. The retirement system did not fall off a cliff under Scenario #1, nor did the system get to a 40% funding ratio. Scenario #1 shows the system being fully funded in 2031. She said the crux of the matter is whether we can afford the payments over the next 19 years, which is the reason behind the whole conversation. The status quo model, Scenario #1, was what the trustees were comparing both SB 187 and Scenario #5 against.

MS. ERCHINGER also explained that Scenario #5, which was for PERS only, and which assumed a \$2.0 billion appropriation into the pension trust fund — not a reserve account, showed an ending actuarial asset value of \$1.3 billion at year 2071. The model did not show how that would get spent down beyond 2071. That was the only scenario she had to go by that showed there would be too much money in the retirement system. However, she would have to ask the actuary to go out a bit further and give an estimate of how

many people were left in the system and if there was too much money at that point. Even if the pension system was overfunded at the end by \$1.3 billion, in simple terms that number reflected two years of employer contributions (2050 and 2051). She felt certain that before reaching 2051 everyone would have a much better idea of exactly what the ending actuarial value would be such that contributions could be eliminated for two years at the end of the period of time. The request to the actuary would be to run the scenario to get to an ending actuarial asset value of zero, and to show how to carve out some of the contributions along the way to get to that. Perhaps that was the approach to continue on.

MR. TEAL said he did not think anybody would believe a model that went out for 50 years, and he would not. He added that in the absence of anything better, people could use such a model as a decision-making tool but recognize that the [funding] curve the model projected was not what was really going to happen. Anything beyond five years was pushing reality.

MR. TEAL remarked that SB 187 had a number of complications, not the least of which was "who pays?" Currently, the PERS employer contribution rate is capped at 22% and the State pays a large amount of state assistance. When that deal was made, state assistance was \$70 million [annually] and expected to climb, and then was supposed to decline rapidly and go away in less than 15 years. What actually happened was that state assistance rose to over \$300 million [a year], and it will continue to increase. That was okay from the State's perspective when there were huge [budget] surpluses.

MR. TEAL said he has brought the issue up through the Finance Committee year after year. The issue has to be dealt with at some point, but as long as there are large surpluses in the foreseeable future, it does not have to be dealt with yet. The State will continue to pay because it can afford to. The projections call for budget deficits in 2015, and the State can no longer look at the future and say it can continue to pay state assistance [to the pension trusts]. He quoted Tim Grussendorf as saying that one should not look at it as what happens if SB 187 passes but what might happen if SB 187 does not pass and the State simply says that the deal is off because it can no longer afford [to pay state assistance] anymore. The contribution rate would become the full actuarial rate, and the municipalities, instead of looking at maintenance of the 22% rate to 2035 to 2040, would face the very near increase of rates going to 35%. It was not a threat, and he was not speaking for the Legislature because he did not know what the Legislature was going to do. However, he could say that it [increased rates] was a very real possibility, because it did not look like the State could afford to make those state assistance payments.

MR. BARNHILL chimed in to say that he appreciated the discussion and views that had been put on the table. It was a discussion that needed to continue through the legislative session and beyond. The issue would be around through the year 2070. There is a track record of revisiting the issue every three to four years. It was looked at very closely in

2004-2005, and that resulted in SB 141. It was looked at very closely in 2007-2008, and that resulted in SB 125. People had been tackling the issue of unfunded liability in the ARMB context since the latter part of 2010. It was important to bear in mind that whatever was done in the context of today would be brought up again three years from now, and six years from now, and every three or four years for the next 70 years. The reason was because people were realizing that circumstances change radically in defined benefit plans, moving forward in time.

MR. BARNHILL stated that the Administration really appreciated the ARMB's work over the past year-plus in working with Buck Consultants and with Legislative Finance to explore a fairly broad set of scenarios. The Administration appreciated the efforts of Mr. Teal in participating in that work and bringing his expertise to bear. The Governor's current position was leaning in favor of the level dollar and the 25-year amortization, which was one of the scenarios that the ARMB supported at its last meeting. The Governor was concerned about any resolution, at least in this legislative cycle, that would appropriate large amounts of money into either the pension trust fund or into a reserve account that would lack flexibility. One of the Governor's primary concerns was to preserve budgeting flexibility, and that concern was informed by the fact that the state budget was highly exposed to short-term oil price volatility going forward.

MR. BARNHILL went on to say that he and Mr. Teal had been making various presentations about the unfunded liability. His approach came from looking at the promises that had been made. Right now, the retirement systems were paying out a billion dollars a year, and the amount the systems would be called upon to pay out would increase sharply over the next 20 years because the Baby Boom generation was now retiring. By 2026, the systems would be required under current actuarial assumptions to pay out over \$3.0 billion [a year] and that would crest up to \$3.5 billion before starting to come down. He has been encouraging people to think about keeping the commitment to pay those promises when they came due, whether next year, 20 years from now, 40 years from now, and 60 years from now. It was particularly important to say that now because in other states that was not happening. Other state legislatures have been saying that they could not afford to pay the actuarially required contribution (the "mortgage payment") anymore, and they were letting the funding ratios of those plans decrease. They were beginning to cut the cost-of-living adjustment for existing retirees, which has resulted in litigation around the country. Courts were beginning to uphold those decisions in other states.

MR. BARNHILL said Alaska has not had to live with those dynamics. Everyone owed a deep note of gratitude to Alaska's Legislature in terms of how responsibly they have handled this issue since 2004-2005. Since the Alaska Retirement Management Board was created, the actuarially required contribution has been made every year. That was incredible, particularly when considering the fact that in Alaska the unfunded liability per capita is probably the highest in the country. Recently, Deputy Commissioner Rodell sent

to him a research paper by Standard & Poor's that analyzed the per capita other postemployment benefits (OPEB) unfunded liability by state. The average per capita OPEB liability in the country was about \$1,200. In Alaska it was \$12,000, the most expensive by far. Yet, in light of that, the Legislature was still stepping up to the plate and helping the systems pay off the unfunded liability in a responsible manner so that the systems could make good on the promises that have been made.

In closing, MR. TEAL observed that some trustees wanted to pay off the entire unfunded liability by 2031 and then have no more contributions to the system, period. But when the State is paying assistance on top of the 22% contribution rate, the State is absorbing a huge share of the cost. In the very brief period between 2028 to 2031-2032, the rate goes from 35% to zero — the state assistance goes away, and so does everybody else's contributions. He said no wonder it was a good deal for the municipalities. The State was saying that it did not mind paying assistance when it could afford to do it, but it could not afford it anymore and, therefore, it would pay the same contribution rate as everybody else. If it [the state contribution] was lowered to 22%, it would take a little longer to pay off the liability. It would cost the retirement system more, and it would cost the State far less.

MR. TEAL said the Legislature wants to know what the Board thinks and for trustees to appear before the committees to talk about the issue. He did not know of anybody who wanted to talk about not paying the actuarially required amounts to the retirement system or about cutting benefits, which was what other states were having to do. However, Alaska's revenue forecast could force it into that same situation. The Finance Committee is more concerned about the State's fiscal picture than the retirement systems' fiscal picture, although they are concerned about both, so it will not be easy to convince them that the State should continue to pay what the State does not believe it can afford to pay.

MS. ERCHINGER remarked that 50 years from now under SB 187 the retirement system would be 50% funded. If oil production really is declining at 6% per year, where would things stand 15 or 16 years from now? The State is in a better position today to pay than it will be 50 years from now, when the system would be only 50% funded. That was her big concern, and she did not think the can should be kicked down the road and put on the grandchildren 50 years from now.

Circling back to an earlier discussion with Mr. Teal about the date at which money in the reserve account would go into the pension trust, MS. ERCHINGER explained that she had subtracted \$2.0 billion out of the assets shown on the "PERS under SB 187" graph because those dollars were not in the pension trust and, therefore, according to SB 187, the dollars have to be in the pension trust to trigger the 50% funding level and for the reserve account assets transfer. She thought that was why she and Mr. Teal disagreed on that point.

MS. ERCHINGER said she appreciated Mr. Barnhill's comments. The Governor had

asked the Board to work together with his Administration and the Legislature to develop some possible solutions [to the unfunded liability]. The Board worked hard to come up with some good solutions, some of which the trustees rejected outright, and some of which the Board asked the Legislature and the Governor to consider because the Board thought they were reasonable. She hoped everyone could find more common ground by looking at some of those scenarios instead of the most extreme scenario that SB 187 represented. She felt strongly that it should not be a battle between the municipalities and the State of Alaska, because anything that hurts the State would necessarily hurt the municipalities. It would not be in the best interest of the municipalities to have a standoff of "us versus them," because the municipalities would always lose. There was a lot of room to work together — not just the Board, the Legislature, and the Governor's Office — but including the municipalities in the state as well.

CHAIR SCHUBERT thanked Mr. Teal for appearing before the Board to explain SB 187 and to hear what the Board had to say. She said she agreed with Mr. Barnhill that it was a complex issue that had been around for a long time. It did not develop overnight, and it was not going to be resolved overnight. She was sure there would be future dialogue between the Board and the Legislature or its representatives.

CHAIR SCHUBERT called a short recess at 12:25 p.m. so trustees could serve themselves lunch. She reconvened the meeting at 12:46 p.m., and the Board took up the next agenda item during a working lunch.

8C. Real Assets FY2012 Investment Plan

STEVE SIKES, Manager of Real Assets Investments for the ARMB, presented the fiscal year 2012 investment plan for the real assets asset class. *[A copy of the slides is on file at the ARMB office.]* He said he had presented the annual investment plan for real estate at the September meeting, and the Board had approved the plan for FY12. He had spliced that real estate plan into a new, broader plan that included all the real assets. The Real Assets Committee reviewed and approved that plan at its November 30, 2011 meeting.

MR. SIKES reported that real assets were 16.8% of the total fund portfolio at September 30, 2011. A large part of that allocation is real estate; the other components are farmland, timberland, energy, and TIPS (Treasury inflation protected securities). He provided background information about the real assets portfolio, including return expectations for each real assets category, the performance benchmarks, and which group of investment staff is responsible for managing each real assets category.

MR. SIKES reviewed the real assets performance as of September 30. The goal is to exceed a 5% real return over rolling five-year periods, however, the data has not been collected for a five-year period yet. Real assets returned 12.76% last year versus the real assets target return of 12.81%. The three-year return is below the target level, mainly a result of the poor performance experienced in the private real estate asset class following

the 2008 credit crisis and subsequent recession. Real estate showed some recovery last year, but there is still a ways to go.

The ARMB has been invested in farmland for over five years. The farmland portfolio earned 9.6% last year, and the return has been almost 7% over the three-year period and over 9% annually for the last five years. On an absolute basis, farmland has been a very attractive experience. Farmland was one of the few sectors that really provided correlation benefit and diversification in the unique period of the 2008 credit crisis and following recession.

The timberland returns were 5.0% last year, most of it appreciation return, revealing that the managers did a good job buying the properties and there was some write-up from the appraisals afterwards. The timberland sector is tied to construction and the housing market, and staff is hopeful there will be good news when the economy returns.

MR. SIKES said the smaller pieces of the real assets portfolio are TIPS and the energy funds, and the performance results show that those components are doing what they are supposed to do.

He mentioned that since the Board approved the FY12 Real Estate Annual Plan at the September 2011 meeting Cornerstone, one of the separate account managers, sold an asset, creating some available capacity for them to make more investments. *[A summary of the FY12 Real Estate Plan was included in the slides.]*

MR. SIKES next reviewed the farmland portfolio, starting with some background information. The total allocation to farmland is just under \$600 million, with approximately \$92 million of that remaining for new investments. Farmland is not an asset in which an investor can deploy a lot of capital quickly, which may be why more institutions are not involved in farmland. The ARMB's average investment size has been \$5.0 million. With two advisors, Hancock Agricultural Investment Group and UBS AgriVest LLC, working for the Board, on average they have been able to invest about \$50.0 million a year. The farmland portfolio is as large as it is primarily because of a large 41-property acquisition that was accomplished in 2008 that represents roughly half of the current portfolio. All investments are in the United States, and the advisors have complete discretion to make the investment decisions within the allocation constraints and the guidelines approved by the Board. The focus is on high quality assets. The source of the return is from leasing the land to farmers, in addition to residual land appreciate return.

MR. SIKES said the farmland program has crop-type target weights, which are 80% row crops and 20% permanent crops. The actual row/permanent crop distribution is 85% and 15%. No leverage is employed. Every year each of the advisors prepares an annual plan on what they plan to do for the upcoming year, and they also provide property level budgets for ARMB staff to review. Each advisor has an annual audit, and all the

properties are appraised annually. Staff also maintains a registration system to ensure that both of the managers do not compete for the same asset and run the purchase price up.

The farmland portfolio has exceeded the 5% net real return goal since inception, and it has had strong relative total returns compared to other asset classes over a difficult period. The farmland portfolio has underperformed the NCREIF custom benchmark, primarily due to early negative returns related to startup costs, and an underweight to the Midwest region (Cornbelt), which has done very well over the past couple of years.

MR. SIKES said the timberland program began in 2007. The total allocation has been \$288 million, with about \$100 million remaining for new investments. The investment pacing has been slower than expected, mainly as a result of valuation adjustments in the public markets from the credit crisis and recession of 2008. The potential timberland buyers saw the carnage in the rest of the market and expected the prices to be very low, while the sellers were unwilling to reduce prices that much and decided to wait. The amount of leverage used in timberland is a lot lower than in real estate; owners do not want to get into the position of being forced to sell to cover the debt service.

MR. SIKES reviewed the structure of the timberland program, which is very similar to the farmland separate account structure. Unlike real estate or farmland, timberland's source of return is derived from biological growth, changes in timber prices, and land appreciation. Each advisor provides annual plans, and ARMB staff reviews the annual budgets at the property level.

The two timberland advisors, Hancock Resource Group and Timberland Investment Resources, have made five acquisitions for just over 100,000 acres in eight states. Most of the acreage is planted pine and is fairly diversified by age class. A large portion of the portfolio is in the Southeast, which is known for its higher growth pine assets. There are, however, micromarkets within the Southeast geographic area, where the acreages are serving different mills and different end-users.

MR. SIKES reported that the overall timberland portfolio results were somewhat disappointing but still acceptable and had exceeded the NCREIF benchmark since inception. The portfolio was still in the capital deployment period in buying assets, and it was a fairly good time to buy since the market had not recovered yet from the 2008 credit crisis and recession. Staff remained very confident about the timberland component of the real assets portfolio.

MR. SIKES next reviewed the Real Assets Plan for fiscal year 2012. The plan is to stay the course with all the components, in terms of advisors and the strategies. Staff was proposing to establish target weights as long-term goals within each one of the asset classes. Both advisors in farmland have adequate allocations to pursue new investments,

so staff was not recommending any changes to the farmland allocation. Similarly for timberland, both advisors had sufficient remaining allocations to pursue new investments. For the TIPS and energy portfolios, staff did not expect any changes other than potential rebalancing adjustments that might occur.

MR. SIKES explained in some detail the staff analysis behind the proposed long-term target weights by asset class component [slide 27].

The proposed target weights would reduce real estate by about 24% and allocate that weight to the other components of the real assets asset class, the biggest beneficiary being the timberland portfolio, which is currently the smallest piece. Staff recommended fairly large bands around the target weights because of illiquidity and because it was not a change that could be actively implemented tomorrow. Staff intended to point the real assets portfolio in the direction of the long-term targets so they could happen in the natural course of the portfolio evolution. For example, as capital is returned from real estate commingled funds, rather than reinvest it in real estate, the money would be redirected to other components of the real assets asset class to try to achieve the target weights over the long term. Another influence on the target weights will be what happens to the overall size of the pension fund, so that could also be an avenue to express the proposed targets. Staff did not intend to direct advisors to take any action, such as selling properties, to achieve the target weights.

MR. TRIVETTE inquired if staff's analysis had been reviewed by the Investment Advisory Council or Callan Associates. He added that he was curious if there were other models for setting long-term target weights in real assets.

MR. SIKES said the main vetting of staff's process was with the Real Assets Committee, and he did not get Callan to review the modeling. As he has spent time in the asset class and looked at what other plans are doing, he thought that staff's analysis using mean variance optimization was fairly cutting edge. However, there was definitely a qualitative, subjective piece in the analysis, and someone might have a good idea to improve upon it. He said the results have an intuitive appeal to him in that the real estate target weight is a little bit higher than the others but there is fairly even distribution between real estate, farmland and timberland. TIPS and the energy funds were kept fairly close to the current allocations.

MR. RICHARDS asked how often staff would re-do the analysis for target weights. MR. SIKES said he did not anticipate that the targets would change, but annually he would report to the Board on how the real assets portfolios were moving toward their target weights.

MR. RICHARDS inquired if there was any kind of push to increase the energy component above the current 3.6% allocation. MR. BADER responded that trustees heard a

presentation on master limited partnerships at the Education Conference in New York City. He said staff had not presented a recommendation to the Board to do anything in that regard, but they had briefly talked to the Investment Advisory Council and Callan people. Staff was deliberating on whether to come to the Board with a request to make energy investments by using master limited partnership open-end funds. Should things move forward, there was room in the real assets allocation to accomplish that.

DR. MITCHELL thanked Mr. Sikes for a good presentation, noting that the real assets portfolio seemed to be very competently organized. He mentioned that many other real assets portfolios that he has looked at have an allocation to precious metals (gold). He asked if staff was considering that.

MR. BADER replied that staff was not looking at precious metals.

DR. JENNINGS commended staff for looking at real assets as an asset class and its size relative to the total retirement fund, as well as looking at what the constituents are. He put in an endorsement for Callan's "chartical," a product that looked at a collection of real asset classes and highlighted their pros and cons. He encouraged the committee members to seek that out. He mentioned that it is reasonable to be thinking about other real assets: agricultural stocks, mining stocks, energy stocks, and even real estate debt. The Board heard a presentation on infrastructure a few years ago, and there was also a commodities presentation at the last Education Conference. While there are concerns about the economy, and some people are still talking about deflation risk, others are getting more and more concerned about inflation risk. Now is a good time to be thinking about both the size of the overall 16.8% allocation [to real assets], in conjunction with the asset allocation meeting coming up in April, as well as how to diversify the sub-portfolio. He pointed out that the ARMB's approach to real assets is very private-market oriented, but there are master limited partnerships and other vehicles that could add a bit more liquidity to the asset class. He encouraged looking at the public market aspects, and to be aware that the real assets portfolio has a fairly US-centric approach so far. There are international aspects to all the real assets, and that would be an advanced placement version of what the Board saw today.

At COMMISSIONER HULTBERG's request, MR. SIKES spent a few minutes explaining the relationship of timberland to the broader real estate market. He noted that while there has not been a meaningful recovery in the new home construction industry, which will drive the demand for timber, the Northwest region has benefitted from exports to Asia over the past year that have helped boost timberland returns. Both the timberland advisors are underwriting their acquisitions to a 9%-10% nominal return.

MR. PIHL observed that the plan for timberland had room in it to go into the Northwest if there are opportunities. MR. SIKES stressed that, in terms of the long-term nature of the plan, he was not sure the portfolio could even get to those weights. In timberland, even if

he could snap his fingers, he doubted it would be possible to move that capital.

MS. ERCHINGER said the Real Assets Committee met on November 30, 2011 to review and recommend the annual plan to the Board.

MS. ERCHINGER moved that the Alaska Retirement Management Board approve Resolution 2012-01 which adopts the Real Assets Annual Investment Plan for fiscal year 2012. MR. PIHL seconded.

The motion carried unanimously, 7-0. *[Mr. Williams and Commissioner Butcher were absent.]*

MR. O'LEARY drew attention to the target bands around the real assets categories being symmetrical numbers, positive and negative: it did not mean there could be a negative allocation.

MS. ERCHINGER asked the Board to approve the Real Assets Committee Charter, which was a modified version of the former Real Estate Committee Charter to change references to "Real Estate" to "Real Assets."

MS. HARBO moved that the Alaska Retirement Management Board approve the Real Assets Committee Charter. MR. TRIVETTE seconded the motion. The motion passed unanimously, 7-0.

MR. BADER stated that the Board, at its retreat, had conveyed that they wanted to hear a single presentation about the economy and so on, followed by short investment manager presentations of performance and any significant events at their firms. To fulfill the first part of the Board's request, Rob Parenteau of RCM had been invited to talk about a global perspective for investments. He said staff would appreciate feedback later on how trustees liked the more abbreviated manager presentations.

11. Global Investment Perspective - Presentation

ROB PARENTEAU, Consulting Economist with RCM Capital Management, made an appearance to talk about the firm's 2012 global investment outlook *[slides on file at the ARMB office]*. He began with a recap of the global downshift in capital markets in 2011. He followed that with the 2012 base case, which he characterized as a selective rebound environment. There tend to be low real or inflation-adjusted interest rates around the world, mostly a side effect of the monetization by central banks. There is widespread expectation of further quantitative easing in the developed markets, and the latest examples are moves by the Bank of England and Bank of Japan. More traditional monetary easing is happening in emerging markets - the cutting of interest rates by central banks has occurred as inflation and commodity price pressures have backed off a little bit. And the private sector, particularly the corporate sector in several regions, has

ample excess cash flow that they could reinvest in capital equipment. RCM believes that will feed a fourth piece that underlies a selective rebound in the global environment in 2012.

MR. PARENTEAU stated that there is corresponding evidence from high-frequency data that these developments are actually getting some traction, and they are beginning to see improvements in the global environment. He described some leading indicators at the front end of the business cycle that RCM has noticed are stabilizing. One example is a shallow improvement in the purchasing managers index, a highly cyclical part of the front end of the economy. However, the returns to asset classes that are exposed to the business cycle may not be as strong as they were coming out of March 2009.

From a bottom-up perspective, he has noticed that analyst earnings revisions have a few more upgrades relative to the downgrades, so a slight improvement there. RCM also looks at economic surprise indices: the U.S. economic news flow in late summer and early fall was running much below the expectations of economists on Wall Street, and now it is running about as high relative to expectations as it ever gets. It is more of a neutral case in the Eurozone, where economic reports are coming in slightly above consensus expectations. In emerging markets there was a strong improvement in Eastern Europe earlier last year as trade balances began to swing more positively, but that is starting to wane. Latin America is showing a stronger earnings surprise. And the laggard is the Asian Pacific Region, which is basically showing economic reports that are close to consensus.

MR. PARENTEAU said RCM uses the economic surprise information in several ways, but what seems to work best for the S&P 500 is the economic surprise index for the emerging markets, which are some of the most cyclical economies out there. The economic news flows have been improving in the emerging markets, which would suggest stronger S&P 500 Index returns on the order of 15%-20% over a one-year time horizon. When the economic surprise index is improving, corporate bonds tend to outperform, and emerging market bonds also tend to outperform. So there are asset class implications from changes in the macro environment.

MR. PARENTEAU next presented inflation data for the U.S., China and the Eurozone. Inflation has been fading over the last year, but it is fairly stubborn, given the slow-down seen in economic activity around the world. In most cases, the inflation rates are still running above the desired target level, which tends to be around 2.0%.

The inertia in the inflation environment may be tied to some of the monetization. He stressed that doubling or tripling the size of a central bank balance sheet is a major policy experiment with important implications. The transition mechanism for this to affect the real economy is twofold. One is when central banks buy assets from the private sector they drive up the price of the assets they are buying. The driving up of asset prices means a

lowering, in general, of interest rates. And lowering of interest rates is supposed to affect the economy by encouraging borrowers to borrow more money and lenders to lend more money. This has somewhat short-circuited. Bank loan growth in the U.S. is very low single-digit. Eurozone bank loan growth is nearly zero. China had a huge credit boom in 2009 as it tried to basically be the locomotive that dragged the world economy out of recession. Now China is trying to unwind its way from that credit bubble that included the overbuilding of real estate.

The transition between central bank easing and monetization and real economic growth is not as strong as it normally would be. Nominal yields on government bonds are being artificially suppressed as central banks buy up Treasury and government securities. The Eurozone is the exception with higher yields because investors do not trust that the Eurozone will make it through and they may lose a few countries or dissolve the currency. Low nominal yields appear to be a benefit to the economy in the short term, but any back-up in bond yields, when they are starting from low nominal yields, means there could be heavy losses in the portfolio, and everybody could want to get out of government bonds at the same time.

MR. O'LEARY asked if there are other periods that were somewhat similar. MR. PARENTEAU said the main similarity is in World War II, when both the U.S. and the U.K. central banks pegged their long-term interest rates so the cost of financing the war was artificially suppressed through that. There were special conditions that occurred after the war that are not quite the same as what is going on this time around. There is no war, we may be approaching lows in inflation, the excess labor in Asia seems to be getting soaked up, and there are commodity price pressures as more consumers are trying to have a middle class American lifestyle.

MR. PARENTEAU stated that the real yield on the 10-year bond is now negative after inflation. If real returns matter to an investor, it is very hard to get it by being in U.S. Treasuries. In order to get a 3.0% short-term rate, the central banks would have to stop the monetization. The conditions in which they would stop monetization is if they were convinced they were on the path of above-normal or trend real GDP growth for probably two or three years, conditions for a major global economic boom.

The asset class that tends to benefit from monetization is real assets, and commodity prices in particular have reflected that. There is a difference between commodity spot prices going up and the total return that an investor can get from owning commodity futures. Monetization in general tends to force portfolio preferences toward fixed physical assets that cannot be expanded quickly, so things like gold get very attractive.

MR. PARENTEAU said that to find yield in a portfolio requires going abroad outside the places where central banks are easing aggressively, and taking currency risk and political risk. Three examples are Australia, Indonesia, and Brazil.

MR. PARENTEAU discussed four main risk scenarios for 2012 to keep in mind:

- Whether Greece will default or not, and whether that has ripple effects in terms of the way that Italy, Spain, Ireland, and Portugal behave. Worst case is a Greek default or too much chaos in Greece, and then investors will get nervous about getting any kind of exposure to any kind of asset in the European Monetary Union. Capital flight from those countries would be supportive of safe assets, usually a safe-haven play in U.S. assets. Countries might revert back to multiple currencies or have a dual-currency system. The main risk scenario will probably be the latter half of 2012 if the countries cannot continue on the path of consolidating fiscal deficits and trying to get back on a growth footing.
- China has had a very rapid development strategy. If that boom goes bust, and the over-investment reveals itself in low returns or falling asset prices, and there is an export slow-down all at the same time, China could shift down from a 7%-8% growth rate to the 4%-5% range. That has knock-on effects on everybody that sells anything to China.
- A secular risk already going on is that corporate sectors of the developed nations have been running large free cash flow positions. When companies do not reinvest their profits, it is a leakage of income from the system. The ripple effects are employment sputters, household income generation is lower, and then consumer spending growth is lower.
- A surge in commodity prices. The monetization and the Federal Reserve promising not to lift the Fed funds rate until the end of 2014 could create another stampede into real assets. And/or there could be a conflict in the Middle East that causes an oil spike that is basically a tax on global consumers, especially oil importers like the U.S.

MR. PARENTEAU said the foregoing were risks the Board should be thinking about when positioning the portfolio, and to ask its investment managers how they would accommodate those types of situations.

He described the very serious contraction in Eurozone industrial production since 2008, even while the countries are trying to shrink their fiscal deficits. It is a vicious cycle where governments raise taxes and cut spending in order to get the fiscal deficit to shrink, and that causes a contraction or a slow-down in private income growth. Private spending then slows down, tax revenues come up short, and the governments have to cut even more or raise even more taxes. And around and around it goes. RCM believes the Eurozone will be in recession for most of 2012.

MR. PARENTEAU stated that RCM's Global Investment Policy Committee meets by teleconference every month to make decisions about asset allocation. Given the macros backdrop he had just presented, RCM finds itself more inclined to increase positions in

equities and in commodities, and they have been reducing cash positions in the last couple of months. On fixed income, they are neutral to probably heading to reducing exposures there. Within fixed income, the corporate bonds and emerging market bonds are where to go in order to get the yields needed for clients.

MR. PARENTEAU answered several questions at the conclusion of the presentation. A question from MR. ERLENDSON was what optimal time horizon a group like the ARMB should be focused on, given the risk scenarios that Mr. Parenteau had outlined.

MR. PARENTEAU responded that an investment vehicle that has an endowment or pension fund-like characteristics has long-dated liabilities and should have a long-range investment horizon. Whether the long-dated liabilities are nominal or real liabilities is a big question. If people have expectations of a certain standard of living on their retirement benefit or some other payout, then the Board needs to be thinking in terms of long-term real returns. If the thought is of getting a check for \$1,000-\$2,000 a year from the Alaska Permanent Fund or some other organization and it is a monetary liability, then the board does not have to spend that much attention to inflation and inflationary trends. He said he has watched the investment time horizons shrinking, as Mr. Erlendson mentioned, down to the trade of the minute. It is unfortunate and has brought a lot of mispricing to asset classes. It has brought too much potential for stampeding effects and essentially not doing the fundamental analysis.

CHAIR SCHUBERT thanked Mr. Parenteau for his presentation.

12. Manager Reports

12(a). Barrow Hanley Mewhinney & Strauss, LLC

Portfolio Specialist MATT EGENES spoke to the Board about the diversified large cap value equity portfolio that Barrow Hanley manages for the retirement fund. *[A copy of the slides is on file at the ARMB office.]* He started with an organization overview, saying that the firm was competing for an \$800 million public fund mandate in large cap value equity, and was just awarded another \$300 million mandate. An existing client also approved funding a \$100 million mandate, and the firm is growing in a very controlled fashion.

MR. EGENES highlighted the equity investment team and noted that they have never lost an investment professional to a competitor. He reported that Jim Barrow would probably retire in a few years but remained an active portfolio manager in the business. The next retirement at the firm would probably be portfolio manager Bob Chambers within the next two years. Over the last year Lewis Ropp has taken on some responsibilities working with Mr. Chambers as his backup portfolio manager. The current investment team has been together for 10-plus years.

MR. EGENES stated that because of all the global macro issues driving market activity,

stock correlations are at record highs. It has been difficult for active equity managers to distinguish themselves in this environment. While Barrow Hanley is not pleased with the absolute level of return in the ARMB portfolio, they were somewhat consoled by the fact that they outperformed. Reversion to the mean bodes well for active managers going forward.

MR. EGENES said that cash deployment has been a real theme in the market; in fact, 2011 was the second largest return of capital year in history. Buybacks can be transitory; management typically does not have a good track record of buying low but tends to buy high when business is good. Barrow Hanley focuses on dividends, and many securities in the portfolio are growing their earnings at high single digits and increasing their dividend yields by 20% and 30%. That would suggest that in the Barrow Hanley portfolio the dividend payout ratio is trending significantly higher.

Merger and acquisition activity is trending upward. The portfolio, by virtue of its preference for large and mid-cap companies, should benefit going forward. With tons of cash on balance sheets and interest rates at historically low levels, companies can match up and be immediately accretive to earnings. In a somewhat uncertain regulatory environment, corporate management is predisposed to M&A activity because they control the cost side of that equation.

MR. EGENES briefly summarized Barrow Hanley's diversified large cap value process. They buy and own stocks of good companies that are down for reasons that they can identify and that they believe are temporary, looking for that unique combination of cheapness and change that will return the stocks to their measure of fair value. The portfolio will always have a lower-than-market price/earnings and price-to-book ratio and a dividend yield premium relative to market.

MR. EGENES spent a few minutes explaining the attribution of portfolio performance versus the Russell 1000 Value Index for calendar year 2011. Their underweight in financials was the best relative contributor, adding 50 basis points. More importantly, they owned the right financial securities that added 260 basis points of relative performance. They overweighted the credit card companies, where credit (lending) is getting better. In consumer staples, the portfolio holds a host of tobacco companies, Philip Morris being the one that contributed the most to relative performance. Health care also contributed. Some of the detractors were consumer discretionary and information technology.

Presenting a page of the portfolio holdings on December 31, 2011, MR. EGENES made some comments on specific company names and industry sectors. He said the dividend yield is 100% greater than that of the 10-year Treasury, yet the portfolio is underweight utilities, and if they did not own a slug of tobacco companies they would be underweight consumer staples, which are two sectors generally that have higher yields. They are getting the yield through owning quality companies in health care and industrials — and

technology, where they believe companies that historically have not paid dividend yields, like Microsoft and IBM, will go higher.

In conclusion, MR. EGENES stated that all the stocks in the Barrow Hanley large cap value portfolio are trading at high single digit and low double digit P/E's and trading extremely cheaply relative to where they were a decade ago.

12(b). McKinley Capital Management, LLC

Relationship manager ALEX SLIVKA and Portfolio Manager ROB GILLAM joined the meeting to report on the U.S. large cap equity portfolio the firm runs for the retirement fund. *[A copy of the McKinley slides is on file at the ARMB office.]* MR. SLIVKA provided a quick update on the firm itself, saying the only change in the past year was the addition of a specific emerging markets growth mandate.

MR. GILLAM stated that McKinley spent a lot of time and effort over the last couple of years reinvesting in people, in systems, and in processes. Since the very difficult 2009 "junk rally," McKinley's performance has been good. The last time they reported to the Board was 2009, and at that time they had said their process was out of favor, not broken. They were happy to say that performance was pretty good over the last couple of years, and they were starting off 2012 in the good category as well. In 2011, they opened a smaller version of the New York City office in Chicago, allowing them to be closer to some clients and consultants, as well as recruiting.

Regarding what drove 2011 performance, MR. GILLAM said the momentum and growth oriented characteristics that McKinley is looking for allowed them to profit both from what they did own — stocks like McDonalds, Philip Morris, Herbalife and others — and from what they did not own, like the Bank of Americas of the world, the Morgan Stanleys of the world, those companies that are still struggling their way through some of the excesses of the credit crisis in 2008 and onward. Probably the most gratifying thing to see in 2011 was that not only did the risk exposures work, but they continued to work in the areas that McKinley thought that they would. They started to see some nice mean reversion in their other strategies as well. Perhaps even more importantly, it was clearly a scary year with lots of volatility and lots of risk-on, risk-off fears. A lot of quantitative managers could not see through the volatility of what was happening in Europe and what was going on in the U.S. with the debt ceiling and things of that nature, but it was not a problem for McKinley. Lastly, as the world starts to work out of the problems, correlations start to go down, and that is really good for momentum and growth-oriented risk exposure. McKinley expects this trend to continue for the coming year-plus in terms of the kind of stocks that will have momentum and growth characteristics and earnings surprise.

MR. TRIVETTE asked what changes McKinley was seeing at this point in the year. MR. GILLAM replied that there was a bit of a sea change going on; the world from McKinley's bottom-up growth and acceleration view was certainly getting more cyclical. They were

seeing additions to the materials space and the consumer discretionary space. The beta of the portfolio was going up. McKinley is focused on selection risk, making sure that they are making bets on individual companies, rather than big bets on sectors or industries.

CHAIR SCHUBERT inquired about McKinley's total assets under management. MR. GILLAM said it was about \$9.0 billion.

12(c). Quantitative Management Associates, LLC

DEBORAH WOODS, one of two portfolio managers of the Value Equity product at Quantitative Management (QMA), made a presentation. *[A copy of the slides is on file at the ARMB office.]* She briefly reviewed the investment professionals at QMA before moving on to portfolio performance.

Since inception of the ARMB account in July 2007, MS. WOODS said QMA has added about 1.75% in value, which is in the range they would expect from their strategy over a market cycle. She pointed out that they have outperformed in both the down turn in the market and through the market bottom, and then in the subsequent recovery. QMA is among a small group of managers with long-term records that outperformed in both market environments. They have been around for a while and have learned a lot of things that they have included in their process that helps them manage through difficult times.

MS. WOODS stated that 2011 was a relatively good year for QMA. More defensive stocks and sectors performed well, and that helped the portfolio. She presented a chart of return rankings as of December 31, 2011 to illustrate that QMA's Value Equity over 20 years added an average of about 1.3% in value per year over the Russell 1000 Value Index benchmark. QMA believes this strategy could achieve 1%-2% over the benchmark per year over a market cycle. She said that may seem modest to some people, however, QMA has delivered on it, and it puts the Value Equity in the top quartile of the universe of large cap value managers.

MS. WOODS reviewed the current positioning of the ARMB portfolio. She said the investment process is designed to continually cycle the portfolio in the direction of value, because that is where the opportunities are. In the past three to four years, that has been in larger capitalization companies. The effect is that QMA has moved closer to the benchmark during that period, and they have a greater exposure to deeper value. QMA has also become more defensive over the past three years and has been adding to the health care sector, consumer staples, and information technology. Large cap technology companies have now become the new staples. A lot of these companies have strong balance sheets, strong cash flows, and a lot of cash on their balance sheets — companies like Intel, Texas Instruments, Microsoft — and they even have an underweight in Cisco. QMA has been selling the more economically sensitive sectors, such as materials and industrials. Those stocks have become more expensive, and they have done really well, so QMA is cycling away from what has done well and is highly valued

and moving into what is low to attractively valued and that has underperformed.

Displaying a diagram of the QMA investment process, MS. WOODS said the strategy to manage money has been used for more than 30 years. She and fellow portfolio manager John Leib have been with it for 25 years, and they are managing it the same way, with some evolutionary type changes. They do not waiver from the process, even when the value style is out of favor in the market. QMA Value Equity is a good diversifying asset within a plan sponsor's overall allocation to equities.

MR. O'LEARY asked what the portfolio turnover rate was in a typical year. MS. WOODS replied that it was around 15%-20%, but at any point it could be lower. MR. O'LEARY asked if most of the turnover was comprised of adding and trimming to existing positions, or if most of it was associated with removing names from the portfolio and adding new names. MS. WOODS said it was a combination of both. QMA does liquidate names in the portfolio, but they hold 150 to 160 stocks and they do not have a lot of information on any one asset in the portfolio. So once stocks that do not meet sale criteria but whose active weights have increased beyond what they are comfortable with, they trim those back with respect to risk control.

DR. JENNINGS mentioned Ms. Woods's comment that quantitative models need refreshing, and he asked her to highlight some changes that QMA had implemented or was looking at. MS. WOODS explained that from the time the strategy was developed, and for about the first 10 years, she and Mr. Leib optimized it. But they realized that no matter what optimizer they used, all it was trying to do was eliminate natural bets in the strategy. So they stopped optimizing the product. In addition to that, they looked back at how the product had played the recession in 1980-1981 and found that it had misplayed. Initially, the only criteria for stock purchase and sale was rank; so cyclical companies at their peak earnings look really cheap, and after they fall they become very expensive. So they put performance screens in, which stops them from buying cyclical companies and other companies that are cheap on peak earnings but they really outperformed in the market. Lastly, their buy universe is divided into quintiles, and that bottom quintile, by their normalized price/earnings ratio, is their potential buy candidates. Those companies outperformed the other four quintiles over the long term. In 2001, they started buying underweighted positions in very large companies in the benchmark that were in the second quintile. Companies in the second quintile do not do as well as the first quintile, but they outperform the average company. That is risk control, and that is why they own an underweighted position in Cisco and in Procter & Gamble. But they will not buy a company that is unattractive, which is how QMA differs from an enhanced index product.

Regarding a chart in the appendix showing QMA's 5-year rolling tracking error, MR. O'LEARY asked if there was any significance to Value Equity's decline in observed tracking error and its apparent stability at a level of just under 2%.

MS. WOODS explained that the increase in tracking error happened during the tech dot-com bubble when the index moved away from QMA. QMA continued to cycle toward value, small caps and lower price/earnings. Over that time, larger cap companies began to underperform relative to smaller cap companies. Presently, value is in large cap companies, and that causes the tracking error. They are not going to move away from their strategy to artificially increase that. If spreads widen and that changes, then people should see a change in QMA's tracking error.

CHAIR SCHUBERT thanked Ms. Woods for her presentation and then called an abbreviated break from 3:04 p.m. to 3:10 p.m.

12(d). RCM Capital Management, LLC

RCM Relationship Manager PETER SULLIVAN, and Chief Investment Officer RAY EDELMAN, joined the meeting to update the Board on the U.S. large cap core growth equities portfolio the firm manages for the retirement fund. *[A copy of the RCM slides is on file at the ARMB office.]*

MR. SULLIVAN advised that the firm had experienced no changes to the investment team or process, and they were approaching the 10-year anniversary working with Allianz and Allianz Global Investors.

MR. O'LEARY inquired about what the holding company changes meant to RCM clients. MR. EDELMAN said it meant absolutely no changes to the day-to-day investment process. The Allianz Global Investors entity is trying to operate more efficiently to take care of any compliance issues or operational issues in the offices around the world. MR. O'LEARY said he took from that that the Board should attach no significance to announcements of someone being named global CIO of a particular office, etc. MR. EDELMAN stated that he reports to Scott Migliori, the CIO of the San Francisco office, and Mr. Migliori reports to Andreas Utermann, who has been Global CIO for about ten years. That reporting line has not changed and will not change.

Addressing portfolio performance, MR. EDELMAN stated that RCM has been able to add fair value over three years, five years and longer. The 2011 year was a difficult one for RCM, given the global conditions and market environment that Mr. Parenteau described earlier that had an impact on many of the stocks that RCM invests in. Just around the time that there began to be a little bit more traction in the U.S. economy in the form of lower unemployment, higher job creation, and improved manufacturing, the market started to rebound off the lows around Labor Day. In 2012, RCM has continued to see that kind of recovery, and the market is up nearly 7%. RCM's large cap core growth portfolio is up about 300 basis points to the overall market.

MR. EDELMAN said one of the issues that many investment managers had last year was trying to separate bottom-up fundamental issues that RCM focuses on with its research

from macro issues and exogenous issues that occurred during the course of 2011. RCM found out that it was nearly impossible to do that. Everyone says they are long-term investors, but the reality is that the investment time frame has shortened so much that one-off situations do have at least a near-term impact on the overall market. No one could have presaged the tragedy in Japan with the earthquake and tsunami, etc., but that had a huge ripple effect on global distribution that took about a month or two to understand. In many respects that was probably the cause for the summer slow-down in the U.S. when GDP went nearly flat.

The dramatic drop-off in the summer was interpreted to mean the U.S. was going to go into recession again, and that investors had to get very defensive and sell cyclical companies. RCM's view was for a selective rebound that included the U.S., and their positive exposure to the more industrial cyclical technology companies meant they got hurt in the third quarter — and that overall hurt their 2011 return number. The recovery in the U.S. economy, albeit a relatively modest recovery, sparked a significant rebound in the overall stock market.

MR. EDELMAN reviewed what sectors and stocks helped or hurt the large cap core growth portfolio in the fourth quarter of 2011 and what helped or hurt over the entire calendar year 2011. He said the good news is that the overall positioning of the portfolio has allowed them to add a fair amount of alpha, even in the first part of 2012. The overweight in technology relative to the S&P 500 Index, and the overweight in industrials and materials, is where they want to be positioned for a recovery. Those are the companies that have the organic top-line growth and the earnings growth, and the valuations are still very compelling. Companies like Apple and Google, and even Microsoft, are selling at 10x to 12x earnings and growing double-digit. The underweights in consumer staples, financials, telecommunication services, and utilities are also consistent with RCM's view that while there are going to be select companies that can show good earnings growth, they do not at this time want to get too defensive. RCM does not view the economy as turning down; they view the economy as continuing to move forward in the 2%-plus GDP range, and selectively have positions in areas of those sectors, but for the most part they have not found things that they like. For example, in consumer staples they own Mead-Johnson, the infant formula manufacturer, which has substantial growth ahead of itself in the emerging markets.

RCM tries to avoid Europe because it is touch and go as to whether or not Europe actually heads back into a recession or is already in a recession. Clearly, the euro is at a crossroads. RCM likes companies that have exposure to the U.S. market and to emerging markets, and they prefer not to be in Europe.

MR. EDELMAN referred to a summary page of RCM's U.S. equity market outlook for the first quarter of 2012 (slide 12). He stressed that the important part was what was missing in the negative column. He said there were a number of things that were moving a bit

towards the neutral or a little bit toward the right. Corporate profits have been very good and that is a concern - what are corporations doing with the cash that they have, and why are they not reinvesting or hiring people? In large measure, the uncertainty around corporate taxes and benefits has made the last dollar that these corporations are going to invest to be one in people, and they are looking to continue to invest in the internet and technology, etc. RCM's is a relatively positive view on 2012. Inflation is not an issue. The Federal Reserve has basically said that interest rates are on hold through at least the next two years. And valuations are relatively attractive if thought of at about 13x.

MR. EDELMAN mentioned that an issue faced by the Board last year was its managers did not perform. In an environment like 2011, managers had to get the sector correct more than get the individual stocks correct. Partly what RCM has seen in 2012 is less of a correlation among sectors and more stock-picking ability, which traditionally has been something that RCM has been able to focus upon.

MR. O'LEARY remarked that it was not surprising to see a growth manager with above-benchmark exposure in a company like Apple. He asked for a refresher on how large RCM would allow a position like Apple to be in the portfolio.

MR. EDELMAN replied that different clients have different guidelines, but typically if there are no guideline restrictions RCM would not have more than 10% in any particular stock name. That may seem high when Apple is only 3.3% of the S&P 500 Index, but it is nearly 7% of the Russell 1000 Growth Index. A prudent point of view in-house is that a 10% position is probably as good as he should get, and if Apple is going to be buying something else, then RCM could add to something like that.

DR. MITCHELL asked how stocks like Exxon and Pfizer found their way into a growth equity portfolio. MR. EDELMAN explained the situation where the market has contracted relative multiples so much today. He said there are many companies that may not traditionally be thought of as growth companies that, either through a restructuring or new management, etc., are re-igniting their growth over the next couple of years and that are very attractively valued. Those names are big parts of RCM's large cap core growth benchmark, and he evaluates whether he can add value to the portfolio by selectively owning some of those big names.

CHAIR SCHUBERT thanked the gentlemen from RCM for their report. She returned to a couple of agenda items that had been skipped over earlier.

1. Chair Report

CHAIR SCHUBERT advised fellow trustees that she received a letter from the Governor that basically requested a divestment in companies that do business in Iran. Because of time constraints, she had not responded to the letter, however, Commissioner Butcher, who had also received a copy of the Governor's letter, had put forward an idea on how to

address the issue.

COMMISSIONER BUTCHER stated that the Governor believed that investments in companies doing business in Iran were at a higher risk than investments in companies that were doing business in other areas, given the situation in Iran and the development of nuclear weapons, and given what the U.S. and other countries were doing with sanctions against Iran. His suggestion was to instruct staff to take a look at the ARMB investments in those companies [that do business in Iran] and measure what staff believed the risk would be to potentially keep them in the portfolio, and report back to the Board at the next meeting.

CHAIR SCHUBERT ascertained that there was no objection from other trustees to proceed in that vein, and she thanked the Commissioner for his input.

8B. Trustee Pihl Report of Presentation to Senate Leadership

MR. PIHL gave the Board a recap of the January 11, 2012 presentation to Senate leadership, noting that trustees all had copies of the exhibits that were the basis of Resolution 2011-23 that the Board adopted at the December meeting, as well as some additional exhibits. He said the findings they emphasized at the presentation were: (1) the real liability, not soft liability; (2) the high ultimate cost of extended amortization periods; (3) the impact on continuing contributions that will get forced into an operating budget somewhere down the line, and the shift to the municipalities; (4) the \$2.0 billion savings of going to the level dollar amortization method; (5) the larger portion of the employer contribution now going to the unfunded liability than five years ago; (6) the stellar investment performance for the last fiscal year - 21.8%, and how much that helped the overall picture; and (7) the excellent staff support the ARM Board has with both the Department of Revenue and the Department of Administration.

MR. PIHL said he hoped the presentation was successful, but then SB 187 surfaced on the heels of it. He felt the thinking behind SB 187 disregarded the power of investment earnings to lower employer contributions over time. He thanked Commissioner Becky Hultberg and Deputy Commissioner Mike Barnhill, who met with the Governor on January 10 to go over the numbers and to talk about the savings from going to a level dollar amortization. He said SB 187 would stop state assistance without regard to the long-term impacts on the State itself and all the municipalities. In contrast, the ARMB has been looking for the approach with the lowest possible cost in necessary contributions for all concerned.

MS. ERCHINGER requested adding time on the next day's agenda to consider a proposed resolution in opposition to SB 187. She added that she wished the Board was not being put in the position of having to act at all, because she had thought the ARMB, the Legislature, and the Governor were all trying to work together. Her concern was that failure to take any action would appear to be a Board endorsement of legislation that

would have a huge adverse impact on the funding of the retirement systems.

MR. TRIVETTE spoke of his intention to ask for a committee of trustees that would be responsible for overseeing this matter and keeping track of legislation. He said he had confidence in the Board's ability to analyze the problems.

CHAIR SCHUBERT reported that she had just received an email that someone from Senator Stedman's office had called her office to schedule a meeting sometime next week, however, she would be traveling next week and was unavailable.

Addressing Ms. Erchinger's request, CHAIR SCHUBERT said the agenda could be amended to add a proposed resolution just for discussion purposes. She commented that it was unusual for the Board to adopt a resolution in opposition to something, and she was uncertain how that would resonate. She proposed that any resolution not specifically target SB 187 but instead broadly state the Board's opposition so that it might be used in future legislative sessions.

COMMISSIONER BUTCHER said he agreed with that, adding that there is a reason why governors do not weigh in on many bills, in particular in the early part of the legislative session. This Board was seeing an early version of SB 187, and the bill could be completely different in a week — so taking a position on a bill could be mischaracterized. It is more important to focus on issues than on actual proposed legislation.

CHAIR SCHUBERT added "*Draft Resolution on Addressing Unfunded Liability*" to Friday's agenda. She also assigned Mr. Trivette, Mr. Pihl, Ms. Erchinger and the board chair to a Legislative Committee. She invited any other trustees to join the committee if they were interested.

RECESS FOR THE DAY

CHAIR SCHUBERT recessed the meeting for the day at 4:00 p.m. She said she would be participating by teleconference on Friday, and Vice Chair Trivette would be chairing the meeting.

Friday, February 17, 2012

CALL BACK TO ORDER

The meeting resumed at 9:00 a.m. on Friday. Trustees Trivette, Harbo, Erchinger, Pihl,

Hultberg, Richards and Butcher were present in Juneau, and Chair Schubert joined by telephone.

REPORTS (Continued)

15. Capital Market Assumptions

MICHAEL J. O'LEARY, Executive Vice President of Callan Associates, Inc., and PAUL ERLENDSON, a Senior Vice President at the firm, gave a presentation on Callan's long-term capital market projections. *[A copy of the slide presentation is on file at the ARMB office.]*

MR. O'LEARY started with a review of Callan's process in developing capital market projections. He stressed that Callan focuses on the broad asset categories and tries to reverse engineer the subcategories so that they are consistent with the broad asset categories. Callan started the capital market projection process earlier than normal this year because they knew it was going to be difficult to come up with long-term projections, given what had happened in the financial markets, and given that the interest rate environment is so extraordinary. Interest rates are the building block of everything that Callan does.

MR. O'LEARY stated that the U.S. equity market almost had a miserable year in 2011, had not the fourth quarter overcome most of the loss that had occurred in the prior six months to end the year slightly positive. Small cap stocks, which had been doing really well, did not manage to recover all of their loss in the fourth quarter and ended the year negative. International stocks, both emerging markets and developed markets, recovered in the fourth quarter but not enough to wipe out the earlier losses. The bond market surprised again, with very strong returns for investment-grade bonds - 7.84% for the full year. Non-dollar government bonds had a fairly healthy return of 5%. Inflation was just under 3% for the full year, and the cash return was an abysmal 10 basis points.

Showing a graph of annual real GDP growth since 1990, MR. O'LEARY remarked that recent growth has been modest but positive. The expectations for 2012 and 2013 are positive but certainly not robust. Forecasters are split, with some thinking that things seem to be picking up, and others thinking that growth will be very muted through the rest of this year but in the 2%-plus range.

MR. O'LEARY briefly covered the reasons behind considerable discussion during the fourth quarter that the country was at risk of having a double-dip recession or at least a pronounced slow-down. He also presented data on household net worth, modest employment growth and the high unemployment rate, the delayed recovery in housing markets, and consumer sentiment. He also discussed the household formation rate, single family housing starts, multi-family housing activity, home sales, mortgage applications for home purchase, the pattern of consumer spending, and the demand for

durable goods.

MR. O'LEARY remarked that he was surprised that inflation was not an issue by now. The 3% inflation rate last year was dominated by food and energy prices.

MR. ERLENDSON related that in the U.S. one of the big things for an aging population to worry about is health care inflation. People in emerging economies who do not have access to health care are more worried about food prices. He said it is important to be mindful of what sort of price inflation people are trying to protect against, particularly when looking at real return portfolios that are predicated upon insulation against rising prices.

MR. O'LEARY said that a policymaker would probably be willing to risk a little bit more by accepting inflation than the alternative. Inflation from a policymaker's perspective reduces the cost of the debt that is already on the books. Homeowners all enjoyed home price inflation, and some people made it income by taking equity out of that ever-increasing home value. The challenge is to keep the genie largely in the bottle. He recalled the graphs that Mr. Parenteau showed yesterday of the balance sheets of central banks around the world, and said it may have helped the people deal with an incredible slow-down, but how are countries going to extricate themselves from the debt.

DR. MITCHELL asked if there was any chance the U.S. could follow Japan and have disinflation or very low inflation, and flat or declining housing prices, for 20 years, and still have a country where people do okay. MR. O'LEARY answered that it was possible, and he went on to explain several meaningful differences between Japan and the U.S.: the population in Japan is fairly old; the labor force is actually contracting or close to it; there is a culture of lifetime employment; people save a tremendous amount of their income for their old age; and, even today, after 20 years of running deficits, the debt is still owned within the islands of Japan. The last point is a major fundamental difference from other developed economies.

MR. O'LEARY said he was not expecting inflation like Germany had in the 1920s but more of an underlying persistent increase in inflation, potentially more like the 1970s but not as extreme. He cited the very significant investment implications if rates were to change by 1%: according to a JP Morgan study, a 30-year Treasury earning 3% would suffer a 19.6% loss over one year.

DR. JENNINGS asked Mr. O'Leary to address the importance of the path. MR. O'LEARY said that from oversight of a pension system he would hope that it happened tomorrow so the system would get to a level where the income being generated would produce a positive real return. As the Board heard yesterday, the real return for a 10-year bond is negative. He said the quantitative people at Callan have done a great job of looking at alternative scenarios in figuring out the bond estimates. They cannot figure out how the current levels will get to more realistic and sustainable long-term numbers without a very

rocky period in the transition.

MR. O'LEARY described how short-term interest rates are a fairly good hedge against inflation because short-term instruments have essentially done about 0.25% better than inflation. So if inflation were at the level of Callan's estimate of 2.5%, then 2.75% for short-term interest rates would also seem reasonable. A person would only buy a 10-year bond if they thought they were going to earn more than on a 90-day instrument. Today, the 10-year bond is at about 1.90%: for the 10-year to produce a return superior to short-term would mean certainly above 3.0% and maybe as high as 4.0%. That is a long way from the current 1.90%. Then the question is whether a person would want to buy a 30-year bond if they could buy a 10-year bond at 3.5% — only if they thought they were going to earn more. So instead of the 3.0%-plus of the 30-year Treasury today, one would expect a decent-sized change in that. All of that circles back to Dr. Jennings's question of how to get there. Callan's conclusion is that letting financial markets adjust to the current environment over the next several years will be a challenging period, particularly in bond space, and particularly in government bond space because the spreads are fairly wide between governments and non-governments.

Saying everyone is hearing about how great corporate liquidity is, MR. O'LEARY stated that without enough opportunities to spend the cash on something to produce income the companies are increasing their dividends, buying back stock, or acquiring other companies. He also talked about the signals from the Federal Open Markets Committee via more transparent meeting minutes, and remarked that investors do not have experience working with the new openness yet. Many people, although not a majority, still think that quantitative easing III will be necessary in 2012.

MR. O'LEARY stated that, looking at the first part of the planning period, Callan expects core inflation to drift higher but not immediately so. They expect interest rates to rise. He drew attention to a summary slide statement of Callan's view that the path to a rational set of long-term capital market outcomes is likely through an ugly shorter-term period of rising interest rates, capital losses in fixed income, and volatile equity markets.

MR. O'LEARY walked the trustees through the math of three components of return — real growth in the economy, productivity, and the labor force growth rate — to get to a defensible 5%-7% long-term appreciation, depending on the starting point, plus the dividend yield. He said it was not wildly exciting but was a reasonable equilibrium frame of reference.

MR. O'LEARY said a good starting point to forecast the next five-year return from bonds is to look at the current yield on the Barclays Aggregate Index, which was 2.24% at the end of 2011. It would be easier to earn more than 2.25% if interest rates declined, and it might be possible, but few people think so. Callan's view is that interest rates will rise, and if they rise, the return on the bond market is going to be comparatively modest.

A written summary of Callan's 2012 capital market expectations was provided on slide #46.

Noting that the ARMB has an earnings assumption of 8.0%, MR. BADER observed that the only asset class Callan projected to earn 8.0% over a 10-year period was emerging markets equity.

MR. O'LEARY reminded everyone that for the last four or five years of Callan capital market projections the expectation for any reasonable [asset allocation] policy has been below the ARMB earnings assumption. Much of it was easy to explain by the inflation rate that was embedded in Callan's expectation being lower than the inflation rate that was presumed by the actuary. Nonetheless, from a real return perspective, the difference is even worse this year because interest rates are that much lower. There used to be some positive real return, but now there is no positive real return in the broad bond market indices.

MS. HARBO asked if the ARMB's 8.0% discount rate was realistic. MR. O'LEARY responded that, given the current level of interest rates, over a five- to 10-year period it would be hard to envision attaining the 8.0% earnings assumption rate. However, if one has a 30-year perspective, then an 8.0% is very attainable. He added that every defined benefit plan sponsor is confronted with this issue. Earnings assumptions in the public sector have come down, as has the ARMB's, but they are still higher, probably because the time frame has to be longer, and legitimately can be longer.

Referring directly to Mr. Bader's earlier comment, MR. O'LEARY said he could not figure out a combination of asset classes that would get [to an 8.0% return] from the current starting point.

DR. MITCHELL humorously observed that one way to get to 8.0% is to believe the presentations of the active managers who all promise 1%, 2% or 3% over the indices returns.

VICE CHAIR TRIVETTE asked Mr. O'Leary if he would have told the Board in 2008 that the retirement fund would attain a 21% investment return in fiscal year 2010. MR. O'LEARY said he would not have, however, 21% was, and is, within the range of projected returns.

MR. O'LEARY displayed a chart of Callan's long-term capital market projections by asset class compared to last year's projections. He said the Barclays Intermediate Treasury Index is an important part of the ARMB investment program. He had asked Callan's quantitative group to come up with a projected return number that was consistent with that index, and they said about 3.15%, although he thought that was high. The long-term

real return for broad measures of the equity market is somewhere between 5.0% and 8.0%, all time-period dependent, so Callan's projection of 5.25% is toward the lower end of that range. And the inflation projection is 2.50%.

Another chart displayed the asset mix alternatives for a portfolio using Callan's 2012 capital market inputs. The returns for each asset mix were calculated three ways: as the annual arithmetic mean return; the five-year geometric mean return; and the 10-year geometric mean return. The ARMB's current policy was between Mix 4 and Mix 5 on the chart, and closer to Mix 4. MR. O'LEARY said Callan was still developing customized return, risk and correlation estimates for farmland and timber that would tweak the mixes a little bit but not be a significant change.

MR. PIHL pointed out that the earnings assumption for the retirement plan was 3.12% inflation and 4.88% real return to reach the 8.0% assumption number.

MR. O'LEARY said the way to deal with that was to subtract 2.50% (Callan's inflation estimate) from the 7.9% to get a real rate of return expectation (5.4%). The Board could then compare Callan's real return expectation with the real return expectation embedded in the actuarial forecast.

MR. O'LEARY stated that the Board had modified its bond portfolio composition in a fairly radical way to emphasize Treasuries, on the advice of staff, the IAC, and the consultant. The change was partially motivated by the desire to invest the greater portion of the bond portfolio in higher return producing assets. The change was also to ensure that those bonds that remained in fixed income really provided liquidity to facilitate the operation of the retirement program, as well as provide a correlation benefit that when there were events like flights to quality that the portfolio had an asset that was not an equity in disguise.

The ARMB fixed income allocation is a little understated because TIPS are included in the real assets category and represent about 1.3% of the entire retirement fund. The ARMB is clearly at the low end of the spectrum in terms of fixed income allocation. Spreads between government bonds and other bonds are wider now than they were because government bonds have gone down a lot. As Callan works with staff over the next month or so on what they will propose as an asset allocation policy at the April meeting, Callan will be talking about numbers of this order of magnitude.

MR. O'LEARY briefly talked about the 10-year capital market expectations versus the long-term 30-year expectations, and how Callan is trying to help people avoid having a riskier policy that might return what they think they need to earn.

MR. ERLANDSON said Callan was shaping a world view of the financial markets to explain how they came up with the capital market projections and the asset allocation

information they would be bringing to the Board. A lot of concerns that people have relate to whether the economy will grow, stay flat, or even shrink, and whether there will be inflation. If the Board looks at its strategic policy and has no view about any of those factors, it would just stay as close to the policy as possible at all times. If the Board wanted to express a view within the constraints of the rebalancing ranges, a table of four quadrants (*slide #54*) of high growth/low growth and high inflation/low inflation would provide a framework. The Board might tilt a little toward certain asset classes that would express a view on economic growth and/or inflation in order to eke out a marginally superior return than the naive policy would provide. For example, in the fixed income market Callan expects rates to rise, but will they rise overnight or will they choppy trend upward? The framework would give a way to express a view on that and modestly shape the portfolio on a moving basis while reaching for the longer-term returns.

MR. O'LEARY mentioned that the Board provides its staff with flexibility within broad ranges. The Board does not expect staff to be timing the market but to use the flexibility to thoughtfully implement the movement toward the strategic policy. For example, staff has to exercise judgment on where to take the money from to meet benefit payment needs, and the timing of that. The Board has also given staff authority to make a real estate transaction up to a certain dollar amount, and to look at private equity investments. Staff reports to the Board before implementing certain transactions, and it is a very thoughtful process.

MR. PIHL inquired about the accuracy of Callan's projections if the Board were able to look back five years. MR. O'LEARY responded that every year Callan looks back at the projections from five years ago, and they try to see if the actual return of each asset class fell within the range that they had projected at that time. The ranges are so wide that generally the answer is yes. They also look to see if projections for portfolios of multiple asset classes produced returns within the ranges that had been expected, and generally the answer is yes. For the periods that ended in 1999 or earlier, Callan tended to underestimate the returns that had been achieved, and once the late 1990s dropped off, there was a period where the returns looked pretty ill but were generally still within the bands. He said Callan would have its update for 2011 completed by the next meeting, and he would share that information with the Board.

CHAIR SCHUBERT remarked that a presentation by RCM yesterday said that central banks, including the U.S., had gone on an unprecedented buying spree of assets to provide liquidity to the markets. She asked Mr. O'Leary what his take was on this, including about any future impacts.

MR. O'LEARY stated that Rob Parenteau showed a slide of the balance sheets of all the major central banks, and they had all mushroomed in size, with the U.S. being the first to really do it in a major way. He shared Mr. Parenteau's view that the key is how the central banks will diminish the size of the balance sheets, that right now that increase in liquidity

has not resulted in a spike in demand nor in bubbles (although the cynic would say the bubble is the decline in interest rates). In an ideal world, as the economy gathers steam, the central banks would back off, and that would tend to reinforce a rise in interest rates. The pace at which the banks did it, and how the market accepted it, would then be the determining factor in what the implications for the real economy are. That is exactly why he had made the statement yesterday that it is easier for policymakers today to accept a little bit more inflation risk than the risk of stepping on the brake too early.

VICE CHAIR TRIVETTE called a short break from 10:37 a.m. to 10:48 a.m.

NEW BUSINESS

1. Draft Resolution on Addressing PERS Unfunded Liability

MS. ERCHINGER reviewed the main provisions of a two-page draft Resolution 2012-02 that had been distributed to everyone *[on file]*. She pointed out specifically that the resolution did not mention SB 187, and that Section 3 would adopt the use of the level dollar amortization methodology.

MR. RICHARDS moved that the Alaska Retirement Management Board adopt Resolution 2012-02 for discussion purposes. Second by MS. HARBO.

VICE CHAIR TRIVETTE said he was comfortable with adopting the level dollar amortization method because he had been part of discussions about it over the past six years. However, he was also fine with removing that section if newer trustees were concerned about taking action on it at this time. He asked other trustees for their comments.

COMMISSIONER BUTCHER voiced his opposition to the Board reacting to a first draft of a bill that was just beginning a process that would see it go through multiple committees. His concern was with the Board taking positions that could potentially limit some of the discussions that the Board could be having in the committees of the Legislature during the legislative session. The next ARMB meeting is after the legislative session is completed. He was encouraged that the Senate Finance Committee wanted to hear from the Board, and he thought that was a start that he would continue to push to make sure that every committee that has SB 187 in front of it gives the ARMB an opportunity to talk about it. It would be more beneficial to deal with it through the public process of give and take in the Legislature than to do it through a resolution that potentially could be outdated, depending on a second draft of a bill that could come out a week from today.

MR. RICHARDS said he saw the resolution as a clarification of the Board's viewpoint on the Buck scenarios that were presented at the December meeting. He felt Mr. Teal's presentation shone a light on several aspects of those scenarios, and he thought there was consensus among trustees about some of the factors, and those were delineated in

Resolution 2012-02.

MS. HARBO expressed her support for Resolution 2012-02, especially Section 1, which generically stated that the ARMB opposed any legislation that would require assets held outside of the trust funds be used in determining employer contribution rates. She also appreciated that the beginning clauses reiterated the work the Board had put into analyzing the different scenarios.

COMMISSIONER HULTBERG said that, unlike Trustee Richards, she did not believe the draft resolution was just a clarification of the resolution passed in December. There were significant and fundamental differences that she did not feel comfortable adopting today without further discussion. Whether a reserve fund should be on or off the table was one difference. Section 2 referenced pension obligation bonds, and the Board had not had much discussion of pension obligation bonds in this context. The third difference was that Section 3 adopts the use of level dollar amortization. While the Board had discussions about it in this context, and the Governor had said he was leaning toward level dollar, he had also asked to allow the discussion to occur before the Board took an action such as adopting level dollar.

COMMISSIONER HULTBERG went on to say that in general she echoed Commissioner's Butcher's comments and felt the resolution was premature. The Board took action in December and since then had been engaged in productive discussions, specifically with the Senate. There was a bill on the table, and she shared the concerns about that piece of legislation, but the process was just beginning. The question was how this Board was going to engage in that process. Coming out with a very specific and strong statement on one or another of those concepts would risk alienating some of the members that the Board would want to be engaging in a productive dialogue with. The Board could take this action at a different time, but there was no need to take it today.

CHAIR SCHUBERT said the Board was expected to be engaged in some capacity as either SB 187, or a House bill, or some permutation or committee substitute bill, moved forward. She felt it would be helpful to have some parameters as to what the ARMB agreed upon. She said the resolution did not target SB 187 and was more broad-scoped than the draft she saw yesterday, and it appeared to give the Board some leeway in adjusting its position if something changed within future bills. Referring to Section 2 of Resolution 2012-02, a way to expand that would be to say "such as, but not limited to" up-front contributions, etc. Regarding adoption of the level dollar amortization in Section 3, she said the Board had had a lot of discussion about it, and the change made sense to her. But she agreed that something might come up or happen in the future that the Board might want to hedge that by saying "expresses a preference for the use of level dollar amortization," instead of clearly adopting a new methodology. She thanked everyone who worked on the resolution, because it was obvious that a lot of work had gone into crafting it.

MR. BARNHILL read aloud a section regarding SB 187 published February 16 in the Alaska Budget Report, wherein Senator Stedman was quoted as saying he would most likely favor the option that cost the State the least amount. He thought it suggested that there was a relative amount of alignment among the ARMB, Senator Stedman, and the Governor. He emphasized the previous comments made by the commissioners that it was the beginning of the discussion, and if the Board adopted the resolution today it would essentially foreclose the ability to discuss further in the legislative context various solutions using amortization methodology. He said that although Ms. Erchinger had stated that it was not the intention, he believed the resolution was poking a finger in the eye of the Legislature.

MS. ERCHINGER said the Board should at least take a stand on what options it does and does not support, and state the reasons. She thought the reason a pension reserve account was on a previous list of options was because some people did not fully understand that a reserve fund would be potentially used to calculate employer contribution rates. The ARMB needed to ensure that proposed legislation did not tie its hands for rate setting, and SB 187 was a big red flag to that. To the extent that Section 3 adopting the level dollar amortization methodology would tie the hands of anybody, she was willing to eliminate that section for the time being.

COMMISSIONER HULTBERG offered that there are many ways of potentially structuring a reserve fund, and although she was not necessarily advocating for that option, to reject the reserve fund concept at this time would be premature. The Board does not know how the actuaries would handle a reserve fund from a rate-making standpoint, and further research and consideration was warranted. At that time, if the Board wanted to take a position on a reserve fund, it would be appropriate, but the Board did not have enough information to make that decision today.

MR. PIHL moved, for purposes of discussion, to amend Section 3 on page 2 of Resolution 2012-02 to drop the word "adopt" and say, "The ARMB strongly supports the use of the level dollar amortization methodology because of its substantial cost savings."
MS. HARBO seconded.

As maker of the original motion, MR. RICHARDS accepted the friendly amendment. However, he said Mr. Johnson, the Board's legal counsel, suggested the use of the word "recommends" rather than the phrase "strongly supports" in Mr. Pihl's motion.

MR. PIHL said he was fine with "recommends."

VICE CHAIR TRIVETTE ascertained that there was no objection to the amendment, and the discussion returned to the main motion.

CHAIR SCHUBERT brought up the need to clarify the last Whereas clause on page 1 by indicating that the numbers were based on information provided in the Buck analysis.

MS. ERCHINGER moved to amend the last Whereas clause on page 1 of Resolution 2012-02, as follows: "Whereas rejection of the above scenario was based on information provided by Buck Consultants as Scenario 1 and Scenario 5 from Attachment A of Resolution 2011-23, and based on the following:..." MS. HARBO seconded.

VICE CHAIR TRIVETTE asked if there was any objection. No one spoke, and the amendment passed.

CHAIR SCHUBERT said the next Whereas on the top of page 2 was a statement that the Board did not believe that the reserve fund concept provided sufficient assurance that the assets would actually be used. She wanted to amend the wording to provide some basis for the Board's concerns. Her suggestion was, "Whereas, the ARMB is concerned that a reserve fund concept does not provide sufficient assurance that the assets will actually be utilized for retirement system purposes because the Legislature has the ability to pull the reserve funds back at any time." She invited anyone to offer better wording along those lines.

CHRIS POAG suggested the phrase "reappropriate the reserve funds" in place of the words "pull the reserve funds back." He went on to explain that SB 187 had been assigned to him in the Department of Law, and he had analyzed the bill. He pointed out that the bill specifically says that money appropriated to the fund can be expended without further appropriation. That means the money has been appropriated by the Legislature into a fund, and the Board gets to spend it, based on the trigger events, without further appropriation. For the Legislature to get that money back, they would have to reappropriate it — an important point. The second combining factor to that is that the Board is obligated under SB 187 to invest these [reserve] assets in the same asset class as the retirement system funds. The assets would have to be liquidated in order to be reappropriated. And then there is the poison pill, or consequences for that. So while the reserve fund does not necessarily result in money in the trust fund permanently, it does give up control of that money to the ARMB, and the Legislature would have to reappropriate it back before they could use the funds.

Regarding Section 1 of the resolution, MR. POAG explained that the concept is that the bill wants the Board to take into account the reserve fund, but the ARMB's statutory obligations to annually calculate a contribution rate do not change. The ARMB was not obligated under SB 187 to take into account the money in the reserve fund; the Board was obligated under the statute to calculate on an actuarially sound basis the amount required under GASB. What will happen is that the ARMB's recommendations will go unfunded. Separate and apart from that, the bill creates triggers under which when the calculations hit certain ratios the ARMB gets to draw from the reserve fund. It creates a

conundrum for the Board, and it is appropriate to point out that the trust fund creates a scenario where the Board will be making employer contribution rates consistent with GASB that will go unfunded. It will mean not being in compliance with GASB, but it will not force the ARMB to include those reserve fund monies in the contribution rate. He said that if Section 1 of the resolution was designed to address SB 187, it does not do that. However, it might be appropriate to leave Section 1 in, if the Board was not addressing SB 187 in the resolution, because using outside assets in determining employer contribution rates is an appropriate concern for the Board.

MS. ERCHINGER said she disagree that SB 187 did not set the contribution rates because the bill set the trigger for capping the employer contribution rate when the combined assets of both the pension trust and reserve account are above 60% funding, and the rates would jump up to the full rates when the combined assets fall below 60% funding.

MS. ERCHINGER proposed an amendment to the first Whereas clause on page 2 of Resolution 2012-02, to read: "Whereas, the ARMB is concerned that a reserve fund concept does not provide sufficient assurance that the assets will be utilized for retirement system purposes because the Legislature may reappropriate the funds at a future time for any other purpose;" MS. HARBO seconded.

Trustees, Mr. Poag, and Mr. Barnhill spent a few minutes in an exchange about the proposed reserve account not being in the trust fund, about calculation of the employer contribution rates, and about where investment income on the reserve account was assumed to go.

MS. ERCHINGER called the question, VICE CHAIR TRIVETTE did a roll call, and the amendment passed, 8-0.

Regarding the second Whereas on page 2 of the resolution, CHAIR SCHUBERT asked Mr. Johnson if it was an accurate statement that under the ARMB's fiduciary responsibility it would not be able to consider the value of the assets in a reserve fund as available to meet retiree benefit payments.

MR. JOHNSON's first response was that he was not sure he could answer the question definitively. The ARMB's fiduciary responsibility is sort of global, and it can consider a lot of things if it wants, and it should be looking to large-scale issues as well as the specifics. He said that if the Board wanted to deal with this at all, maybe it was better to say something to the effect that the ARMB's responsibilities under AS.37.10 are made difficult if it is required to value the assets in a reserve fund as available to meet retiree benefit payments, and so on.

MS. ERCHINGER proposed an amendment to the second Whereas on page 2 of

Resolution 2012-02, so the line read: "Whereas, the ARMB's fiduciary responsibility to the retirement systems may not allow consideration of the value of the assets in a reserve fund..." So replacing the words "cannot consider" with "may not allow consideration of."

Along the same vein, MS. ERCHINGER proposed an amendment to the second to the last line at the very end of the second Whereas on page 2 of the resolution to read: "..., the ARMB may be unable to consider the assets in a reserve fund..." So replacing the words "could not" in that second to last line with "may be unable to consider."

MS. ERCHINGER said those were two separate proposed amendments in the same Whereas clause.

MS. HARBO seconded.

After a brief exchange between Mr. Barnhill and Mr. Johnson about any burden on the ARMB's fiduciary responsibility to invest the assets of the reserve account, MS. ERCHINGER called for the question.

VICE CHAIR TRIVETTE did a roll call, and the two amendments passed, 8-0.

COMMISSIONER HULTBERG expressed how uncomfortable she was that the Board was taking action to make a strong statement about a concept that it had not thoroughly vetted. She said it was clear just from listening to the legal discussion around the table that the Board had not thoroughly vetted the reserve account concept.

MR. PIHL said he interpreted the resolution as trying to say that if a pension reserve account were set up, as fiduciaries the Board needed clarification of how it would work.

MS. ERCHINGER said the resolution did not convey that the Board would not consider a reserve account, only that trustees were not comfortable with being asked to include assets outside of the trust funds for the purposes of setting rates.

MR. RICHARDS called the question.

VICE CHAIR TRIVETTE called the roll on the main motion to adopt Resolution 2012-02, as it had been amended:

Ayes: Richards, Erchinger, Pihl, Harbo, Schubert, Trivette

Nays: Butcher, Hultberg

The motion carried, 6-2.

CHAIR SCHUBERT said she voted yes because the resolution had enough leeway, and the Board could always reconsider and revise the resolution in the future.

COMMISSIONER HULTBERG requested that when and if members were presenting in front of committees that they note that it was not a unanimously passed resolution.

MR. PIHL said he had prepared a hand-written chart of a comparison between the current scenario [of paying off the unfunded liability] and the SB 187 scenario, and he pointed out some of the notable differences.

Ms. Erchinger was excused at 11:55 a.m. to go to the airport.

Trustee Comments were opened up next because Mr. Richards also had to leave to catch a flight.

TRUSTEE COMMENTS

MR. RICHARDS informed fellow trustees and staff that his appointment was up on March 1, and he did not submit his name for reappointment, so this could be his last meeting. He said he truly enjoyed his time on the ARMB, and the things he had learned, the places that he had traveled, and the people he had met had been tremendous. He gave tribute to Mr. Bader and his staff for ensuring the state's public funds were in great hands, adding that he could not say enough about the confidence he had in their abilities. He would miss Mr. O'Leary's reports, Mr. Johnson's whereases and statutes, Dr. Jennings's vocabulary, Mr. Wilson's Boston viewpoint, and particularly Dr. Mitchell's soliloquies. He appreciated Mike Williams' help early in his term, and he hoped to run a meeting as tightly as Chair Schubert. He enjoyed Sam's laugh and warm affect, and Martin was not afraid to take the bull by the horns. He had enjoyed meeting the two new commissioners, along with deputy commissioners and directors. The State was also lucky to have the sharp mind of Mike Barnhill in whatever capacity he holds. And who knew what Kris Erchinger did in a previous life to be stuck between him and Mr. Pihl. Lastly, he owed much to Mrs. Harbo, who was instrumental in his career as a teacher, and who was a mentor to him.

MR. RICHARDS said that teaching was very important to him, and he was happy to do it for nearly 30 years. His final thought was that teachers in this state did not participate in Social Security. Under the newest tier, teachers have no version of a defined benefit plan, and, unlike some private employers, they cannot boost retirement savings with overtime, bonuses, employer matching programs, stock options, or equity buy-ins. He urged comparing apples with apples when comparing job data between teachers and private sector jobs. Teachers are minimally four-year degreed individuals and have a mandatory continuing education requirement. The unfunded liability is a problem that will be solved. The Board will be an integral part of that solution. But if the fund were made whole tomorrow, the Tier III teachers, who we put in charge of our most precious resource, and who have one of the lowest entry-level salaries for college graduates, may, because of

market fluctuations and thus through no fault of their own, exacerbated by typical human nature, and although working for us for 25 or 30 years, have no reasonable retirement security. He asked each person to use their good minds and influence to help with this very important problem.

VICE CHAIR TRIVETTE thanked Mr. Richards for his service.

UNFINISHED BUSINESS

1. Disclosure Reports

MS. HALL stated that the disclosure report listing financial disclosures submitted since the last meeting was included in the packet.

2. Meeting Schedule

In the packet, and no changes.

3. Legal Report

MR. JOHNSON indicated he had no additional report.

MR. POAG reported that a pension forfeiture provision was added to statute in 2007. It is the responsibility of the ARMB to effect enforcement of that provision. He and Ms. Hall are working with the Department of Administration on a plan for enforcement of the provision to be prepared if and when a case ever arises. They will provide an update as the plan progresses.

OTHER MATTERS TO PROPERLY COME BEFORE THE BOARD - None.

PUBLIC/MEMBER COMMENTS

LARRY SEMMENS spoke by telephone and said he appreciated being able to listen in. He said "good work" to the ARMB, and thanked trustees for their continued attempts to help with fixing the unfunded liability. Lastly, he was glad to hear that Dr. Mitchell was reappointed to the Investment Advisory Council.

INVESTMENT ADVISORY COUNCIL COMMENTS

Dr. Jennings had left for the airport.

DR. MITCHELL thanked the members of the Selection Committee and the entire Board for choosing him to serve another term on the Investment Advisory Council. He had the opportunity, either as a portfolio manager or advisor, to be part of the ARMB since its inception, and part of its predecessor, the Alaska State Pension Investment Board, since its inception. Next year will mark two decades of their association, which means they have

certainly exceeded the actuarial life expectancy for a relationship between a plan sponsor and an investment professional. He said this Board has always impressed him as one that takes its responsibilities seriously, and does not hesitate to speak its mind, and that has the best interests of both the state and the participants in mind. That is why he enjoyed working with the Board and why he promised to give it his best.

TRUSTEE COMMENTS (Continued)

MS. HARBO thanked Mr. Pihl for all his work on the scenarios and for his presentation to the Senate leadership. She also thanked Ms. Erchinger for her vigilance in making sure trustees understood SB 187 and the possible implications on the municipalities. And she would miss Tom Richards and his humor; he had been a friend for a long time.

CHAIR SCHUBERT thanked Ms. Erchinger and Mr. Pihl for all the work that they did.

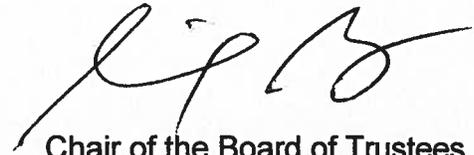
VICE CHAIR TRIVETTE remarked that the Board began a process last year during a planning session to do a better job in terms of governance of itself. Some of that had slipped by the wayside the last couple of meetings because the Board has been heavily involved in legislation and actuarial scenarios. But the Board needed to get back to that a bit more, in terms of making sure that it does some of the things it said in the past it was going to do. He said he did not like the situation of being rushed to get decisions made, and he felt others might also feel that the resolution [2012-02] was not absolutely perfect. The point that had to be made clear to the Legislature and the Administration was that the Board has concerns that some things at this point in time do not appear to be very useful, while other things would be very useful. The Board spends a lot of time with the actuaries on matters. He was glad there would be an opportunity to work with the people. It was good there was a Legislative Committee in place, and a charter would have to be done for that committee. He thanked the people who had testified at this meeting, and he especially thanked Mr. Pihl and Ms. Erchinger for all the work they have done on the unfunded liability issue. He thanked the staffs of Revenue and Administration, who were very busy at this time of year.

FUTURE AGENDA ITEMS

VICE CHAIR TRIVETTE's reminder was to get the Legislative Committee together soon.

ADJOURNMENT

There being no objection and no further business to come before the board, the meeting was adjourned at 12:13 p.m. on February 17, 2012, on a motion made by Ms. Harbo and seconded by Mr. Pihl.



Chair of the Board of Trustees
Alaska Retirement Management Board

ATTEST:



Corporate Secretary

Note: An outside contractor recorded the meeting and prepared the summary minutes. For in-depth discussion and more presentation details, please refer to the recording of the meeting and presentation materials on file at the ARMB office.

Confidential Office Services
Karen Pearce Brown
Juneau, Alaska